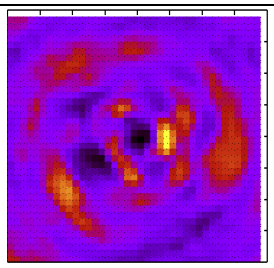
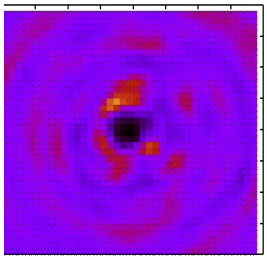
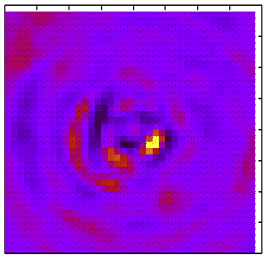
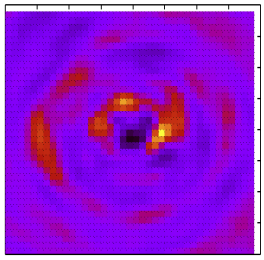
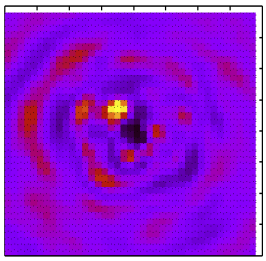
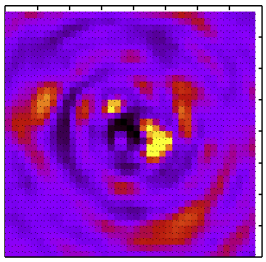
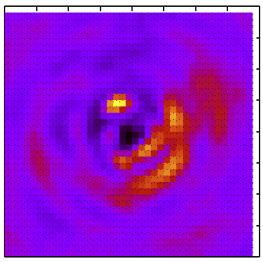
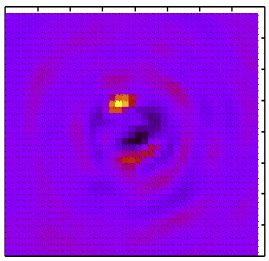
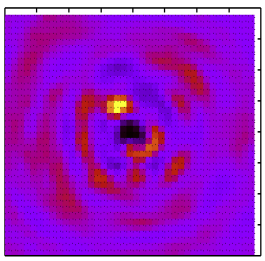
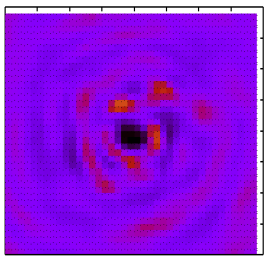
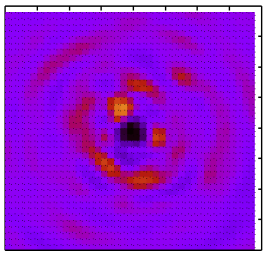
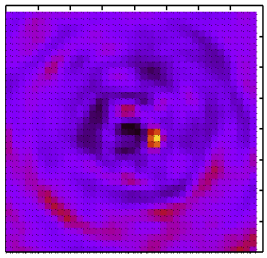
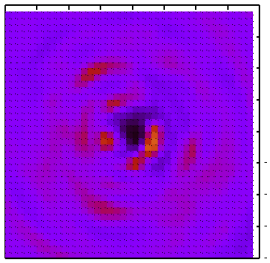
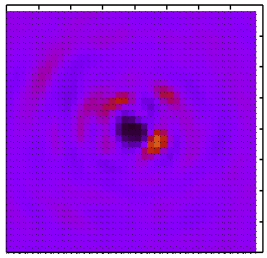
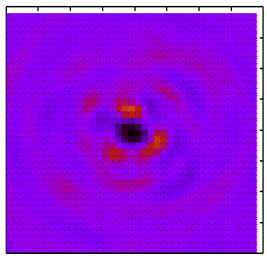
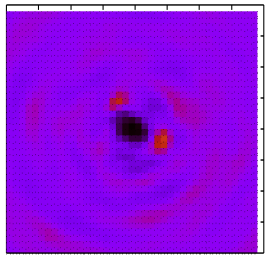
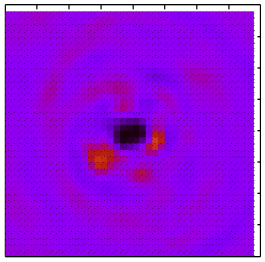
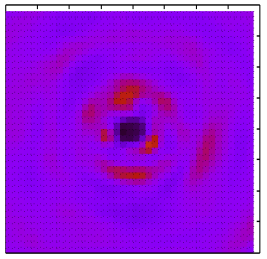
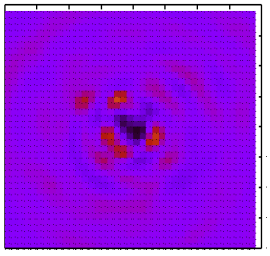
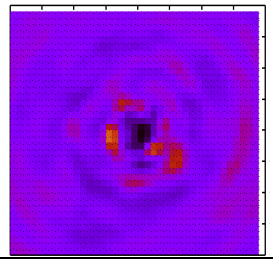
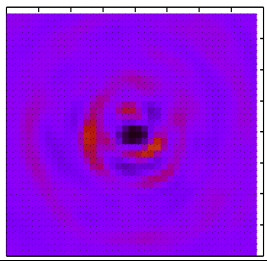
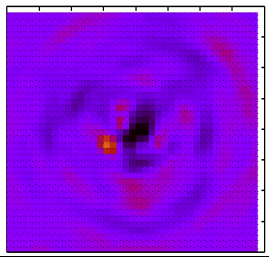
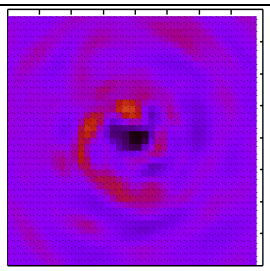
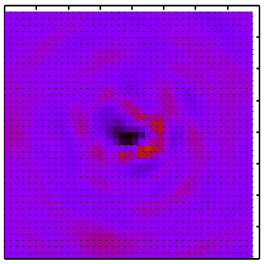
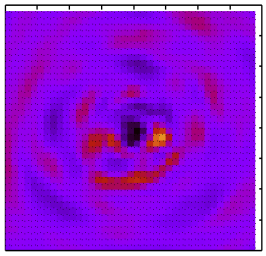
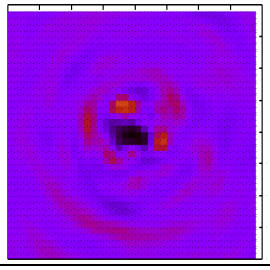
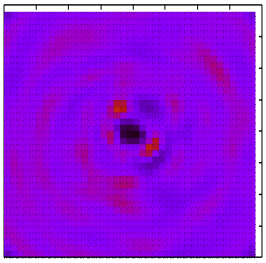
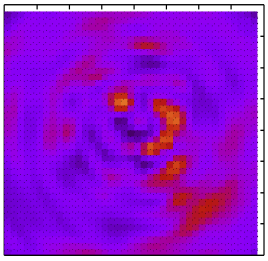
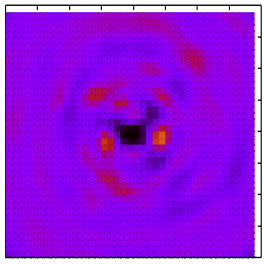
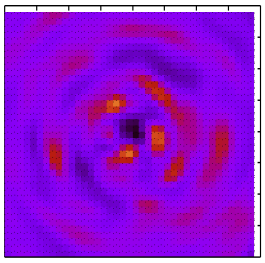
Supporting Information: "Atomistic simulation of cholesterol effects on miscibility of saturated and unsaturated phospholipids: Implications for liquid ordered/liquid disordered phase coexistence", Jason de Joannis, Patrick S. Coppock, Fuchang Yin, Makoto Mori, Absalom Zamorano, and James T. Kindt*

Reference (51): Frisch, M. J.; Trucks, G. W.; Schlegel, H. B.; Scuseria, G. E.; Robb, M. A.; Cheeseman, J. R.; Montgomery, J. J. A.; Vreven, T.; Kudin, K. N.; Burant, J. C.; Millam, J. M.; Iyengar, S. S.; Tomasi, J.; Barone, V.; Mennucci, B.; Cossi, M.; Scalmani, G.; Rega, N.; Petersson, G. A.; Nakatsuji, H.; Hada, M.; Ehara, M.; Toyota, K.; Fukuda, R.; Hasegawa, J.; Ishida, M.; Nakajima, T.; Honda, Y.; Kitao, O.; Nakai, H.; Klene, M.; Li, X.; Knox, J. E.; Hratchian, H. P.; Cross, J. B.; Adamo, C.; Jaramillo, J.; Gomperts, R.; Stratmann, R. E.; Yazyev, O.; Austin, A. J.; Cammi, R.; Pomelli, C.; Ochterski, J. W.; Ayala, P. Y.; Morokuma, K.; Voth, G. A.; Salvador, P.; Dannenberg, J. J.; Zakrzewski, V. G.; Dapprich, S.; Daniels, A. D.; Strain, M. C.; Farkas, O.; Malick, D. K.; Rabuck, A. D.; Raghavachari, K.; Foresman, J. B.; Ortiz, J. V.; Cui, Q.; Baboul, A. G.; Clifford, S.; Cioslowski, J.; Stefanov, B. B.; Liu, G.; Liashenko, A.; Piskorz, P.; Komaromi, I.; Martin, R. L.; Fox, D. J.; Keith, T.; Al-Laham, M. A.; Peng, C. Y.; Nanayakkara, A.; Challacombe, M.; Gill, P. M. W.; Johnson, B.; Chen, W.; Wong, M. W.; Gonzalez, C.; Pople, J. A.; Revision C. 01 ed.; Gaussian, Inc.: Wallingford, CT, 2004.

Figure S1: Density plots of $g(r,\phi)$ of DPPC and DOPC lipids surrounding cholesterol in ternary lipid mixtures. Definition of distance and angle coordinates are as defined in Methods; the positive X direction (i.e. $\phi = 0$) corresponds roughly to the β face of cholesterol. All plots depict an area of 4.0 × 4.0 nm centered at the cholesterol. Trajectory names correspond to those used in Table 1.

Trajectory name $N_{Chol}/(N_{chol}+N_{PC})$ $<N_{DPPC}>/N_{PC}$	Chol-DPPC	Chol-DOPC
C3α3 0.031 0.21 ± 0.01		
C3α10 0.031 0.48 ± 0.01		
C3α30 0.031 0.744 ± 0.006		
C8α3 0.078 0.19 ± 0.01		
C8α10 0.078 0.53 ± 0.01		

C8α30 0.078 0.81 ± 0.01		
C16α3 0.156 0.24 ± 0.01		
C16α10b 0.156 0.47 ± 0.01		
C16α10c 0.156 0.55 ± 0.01		
C16α30a 0.156 0.78 ± 0.01		
C16α30b 0.156 0.79 ± 0.01		

C31α3a 0.312 0.42 ± 0.02		
C31α3b 0.312 0.26 ± 0.02		
C31α10a 0.312 0.76 ± 0.02		
C31α10b 0.312 0.69 ± 0.02		
C31α30 0.312 0.92 ± 0.01