Biophysical Journal, Volume *111*

Supplemental Information

The Role of Cholesterol in Driving IAPP-Membrane Interactions

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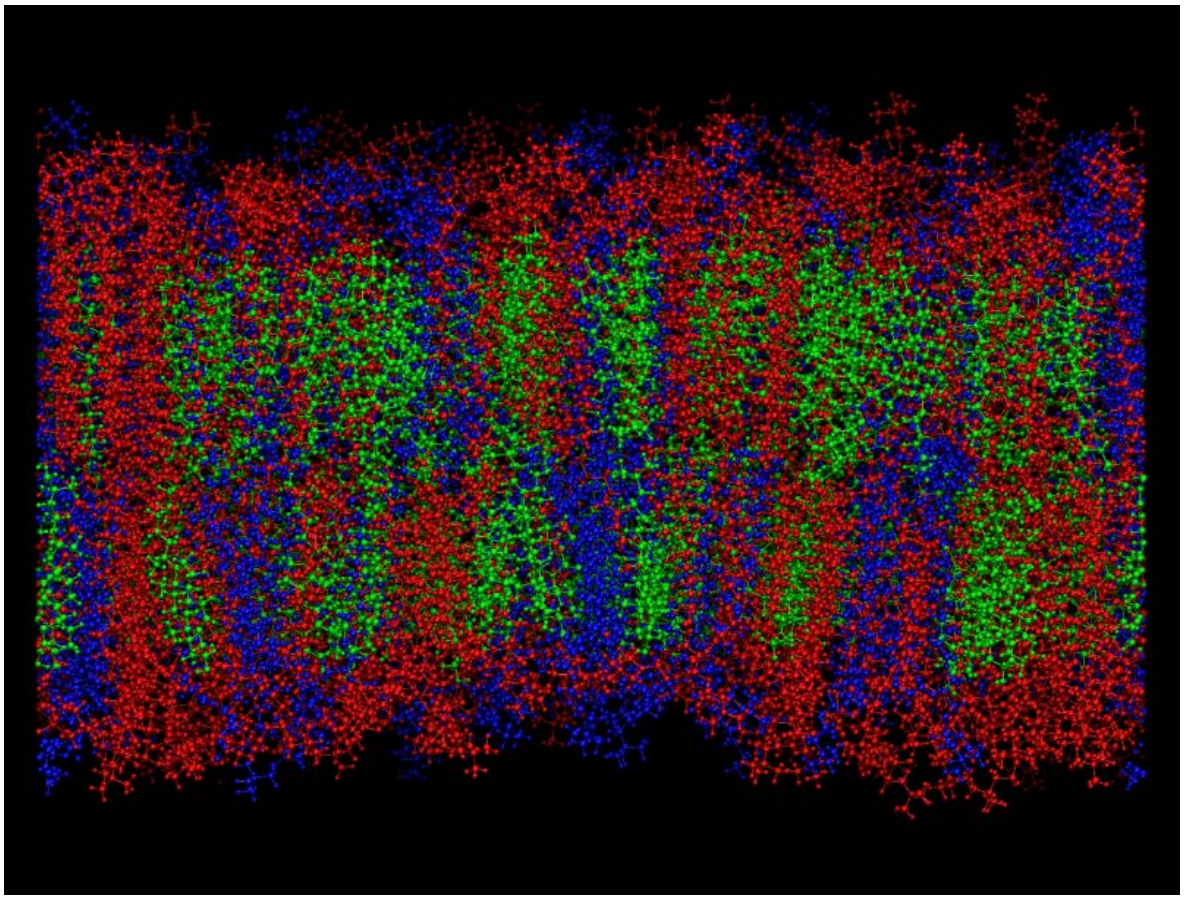

Figure S1. Location of cholesterol in a lipid bilayer obtained after 300 ns molecular dynamics simulation of DPPC/DOPC containing 40% of cholesterol.

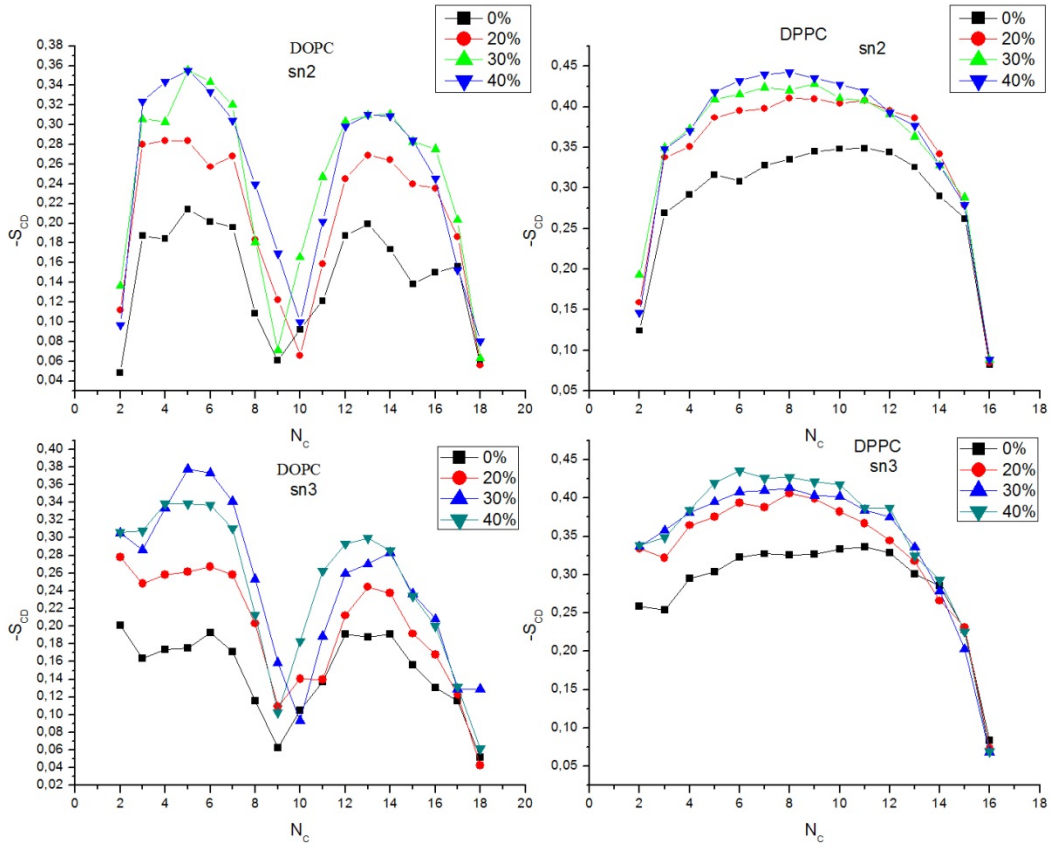

Figure S2. Order parameters ($-S_{CD}$) of DOPC/DPPC/Cholesterol lipid bilayers calculated from MD simulations. S_{CD} was evaluated as averagedover last 50 ns of simulations by takingboth leaflets into account. DOPC carbon-carbon double bond of sn2 (black) and sn3 (red) hydrocarbon chains are between C9-C10.

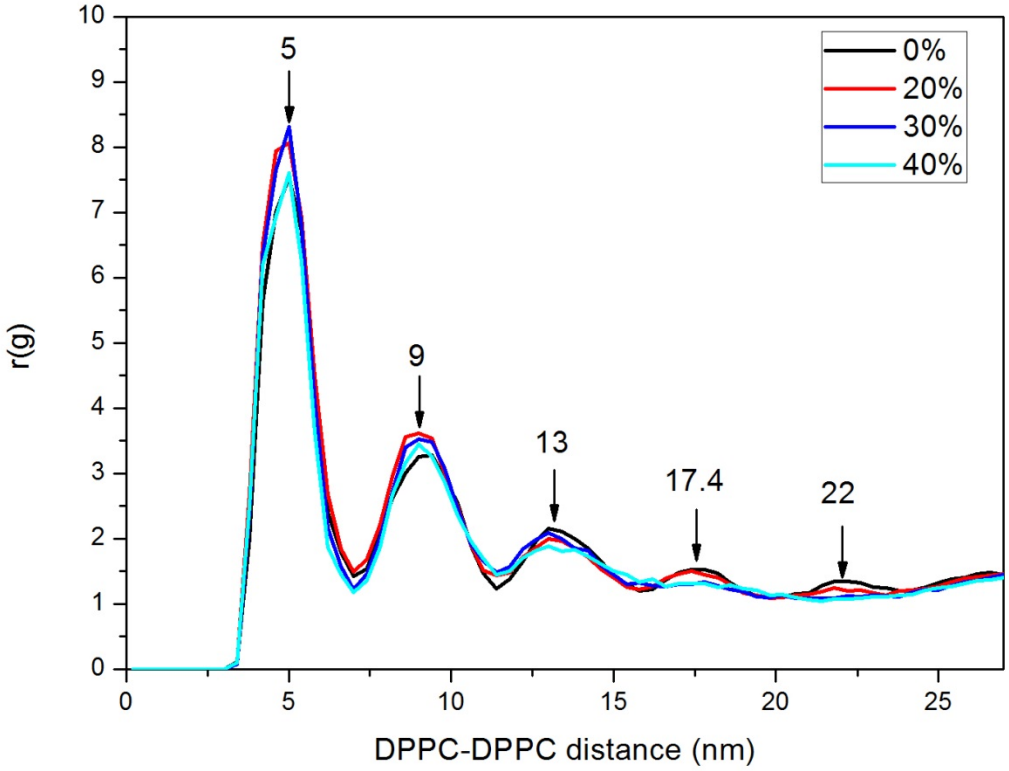

Figure S3. Radial distribution function of DPPC in mixture with DOPC and a varyingamount of cholesterol: 0% black; 20% red; 30% blue and 40% cyan. R(g) was calculated for C8 carbon atom of DPPC-DPPC.

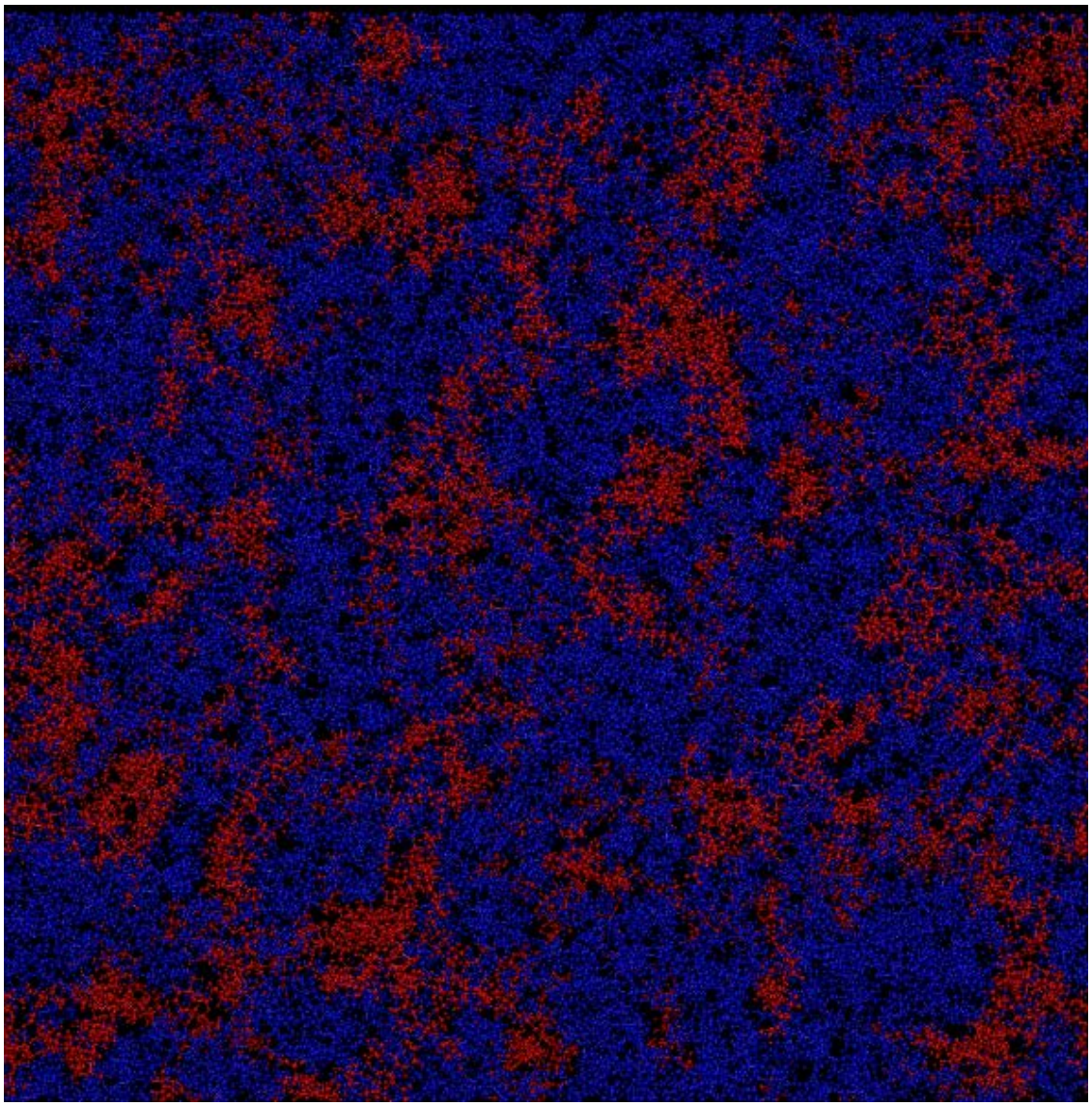

Figure S4. Top view of phospholipid distribution in aDOPC:DOPS (7:3) lipid bilayers after 300 ns of molecular dynamic simulations.

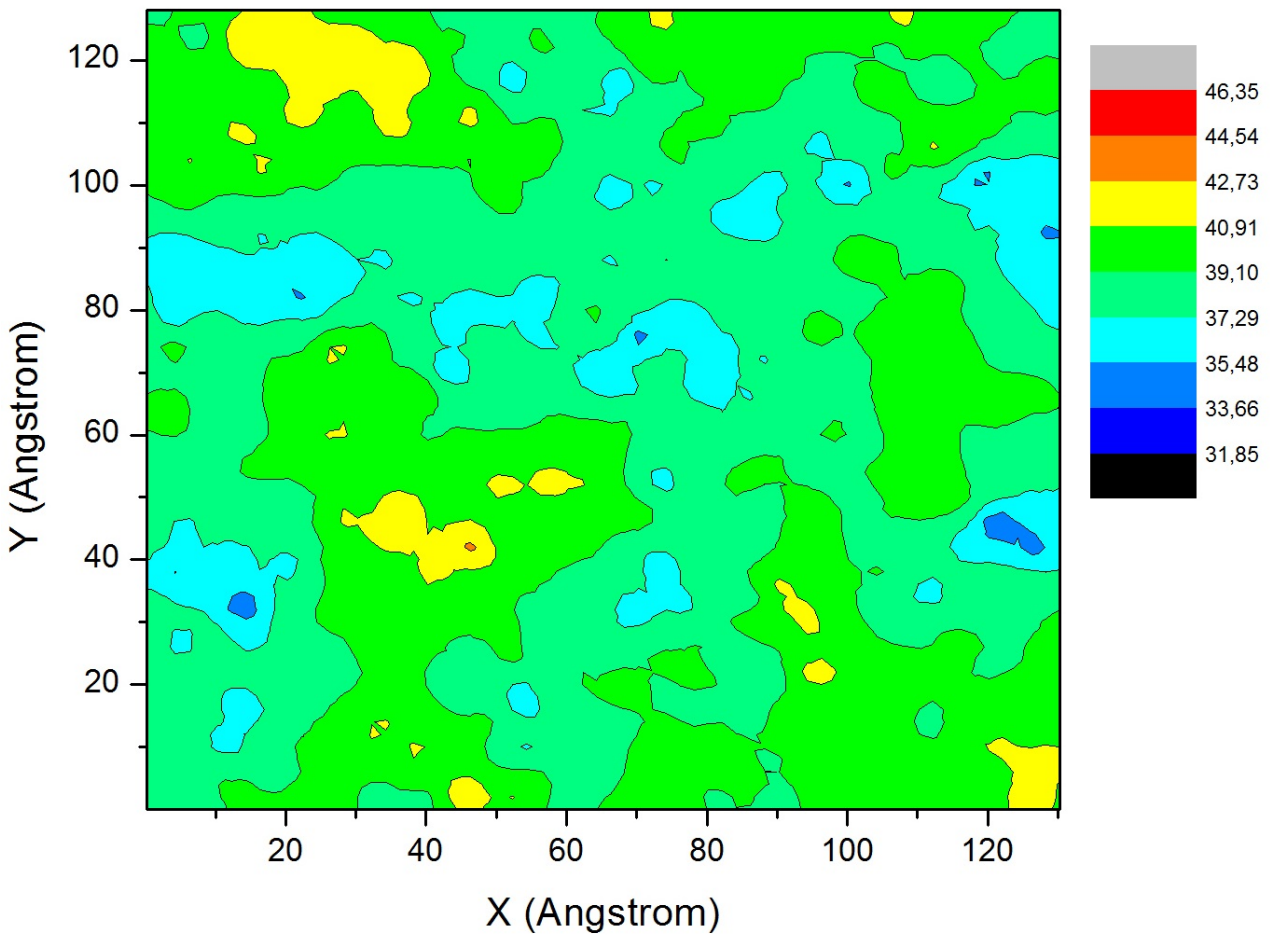

Figure S5. Thickness profile of DOPC:DOPS (7:3) lipid bilayers after 300 ns of molecular dynamic simulations.