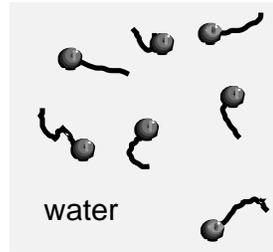
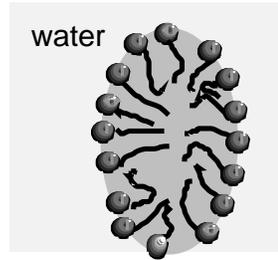


CONSTRUCTION: EASE OF ASSEMBLY

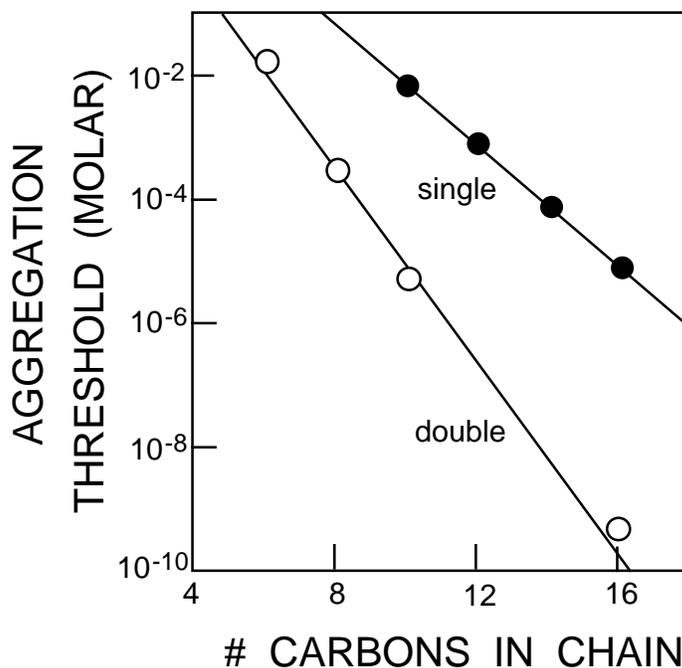
COMPETITION OF ENERGY vs. ENTROPY



AGGREGATION THRESHOLD $\exp(-E_{\text{BIND}} / k_B T)$

WHERE THE BINDING ENERGY PER LIPID IS

$$E_{\text{BIND}} \sim \text{AREA} \cdot \gamma \sim 2 R_{\text{MOL}}(d/2) \gamma$$



PC head groups

SHORT SINGLE CHAINS:

INEFFICIENT MATERIALS USAGE, FLOPPY MEMBRANE

LONG DUAL CHAINS:

MATERIALS EFFICIENT, STIFF MEMBRANE