I would like to learn more about how the properties/interactions can determine the shape of complex structures.

One question that I had while looking at the notes was if similar membranes could form in hydrophobic substances, such as oil. This would have hydrophobic tails pointing out while the hydrophilic heads point in. If so, would this membrane be able to support life at a level close to or equal to the cell membrane we know today?

I’m not clear on how the interaction between plastic beads and the water requires energy. Is it because the hydrogen bonds are broken?

I’m missing the connection on why the plastic beads come together or why the water pushes them toward one another?

C. The meniscus allowed more interactions to form with the glass beads but I don’t see how the meniscus forms unless it is interacting with the sides of the petri dish, perhaps?

D. With the principle of like attracts like, the glass beads want to be together in an aqueous environment and the plastic beads don’t want to interrupt the bonds of the water so they come together. On the last slide where it goes into how each bead can have different properties, I saw how that could change subtle parts of the structure but not necessarily the larger, grand scale of the structure.

B)If the interaction is hydrophobic it causes them to stay away from the water.

perhaps tying more large scale reactions to molecular biological functions would be both interesting and beneficial.

Concepts on a more micro-level regarding the chemistry of these interactions would help my understanding.

Why do the glass beads move to the edge of the Petri dish, even though they are hydrophilic?