Source: KBhBIO101Lipids

1 | Structure of Lipids

Fatty acids

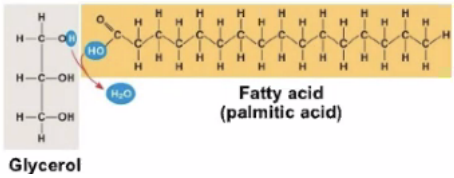

Figure 1: Screen Shot 2020-09-09 at 2.58.49 PM.png

A single penteine and embellishments. **Single Fatty acids = Glycerol**

Trygricerol

Fat! (a.k.a. adapose tissue) = Triglycerol: three gcycerals together.

Saturated vs. Unsaturated fats

Saturate Fats *No double bonds* in the carbon chain — think! butter

Unsaturated Fats *Double bonds* in the carbon chain — think! olive oils

Saturated fats has a higher melting point then the unsaturated fats, but unsaturated fats have double bonds whereas saturated fats have single bonds only. Why?

- Double bonds, due to their caused VESPR geometry (and hence the -1 hydrogen), are curved. This makes it harder to stack together, causing a lower melting point
- Single bonds, due to their caused VESPR geometry, is flat. This makes them easier to stack together, causing a higher melting point.

Phosophilids

2 fatty acids (hydrophobic) + phosphate group (hydrophillic)

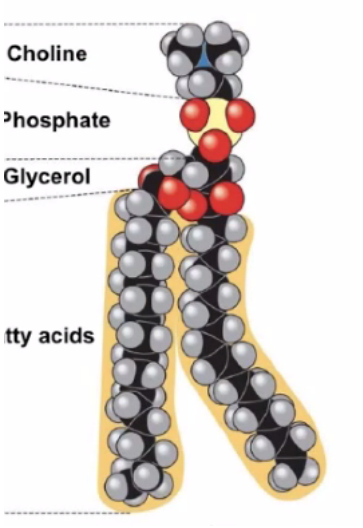

Figure 2: Screen Shot 2020-09-09 at 3.15.41 PM.png

A combination of many of these will end up with membrane: Screen Shot 2020-09-09 at 3.08.10 PM.png

The hydrophobic tail stays inside, and the hydrophillic head pokes outside and attracts water.

Liposomes + micelles

Lots of phosophillids

Screen Shot 2020-09-09 at 3.11.54 PM.png

A same idea as phosophilids, but instead in a big wad of balls. this arrangement is also how basic cells form membraines.