

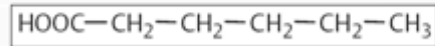
LIPIDS

FREE FATTY ACIDS

A. Carboxylic acids

Name	Number of carbons	Number of double bonds Position of double bonds
Formic acid	1:0	○
Acetic acid	2:0	○
Propionic acid	3:0	○
Butyric acid	4:0	○
Valerianic acid	5:0	○
Caproic acid	6:0	○
Caprylic acid	8:0	○
Capric acid	10:0	○
Lauric acid	12:0	○
Myristic acid	14:0	○
Palmitic acid	16:0	○
Stearic acid	18:0	○
Oleic acid	18:1; 9	○
Linoleic acid	18:2; 9,12	○
Linolenic acid	18:3; 9,12,15	○
Arachidic acid	20:0	○
Arachidonic acid	20:4; 5,8,11,14	○
Behenic acid	22:0	○
Erucic acid	22:1; 13	○
Lignoceric acid	24:0	○
Nervonic acid	24:1; 15	○

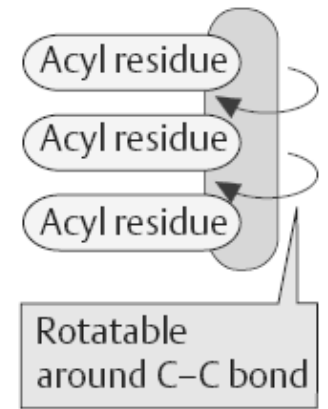
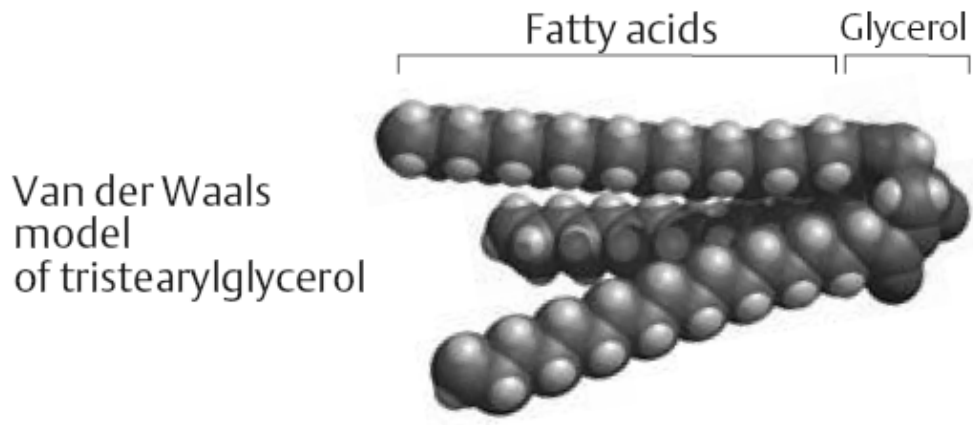
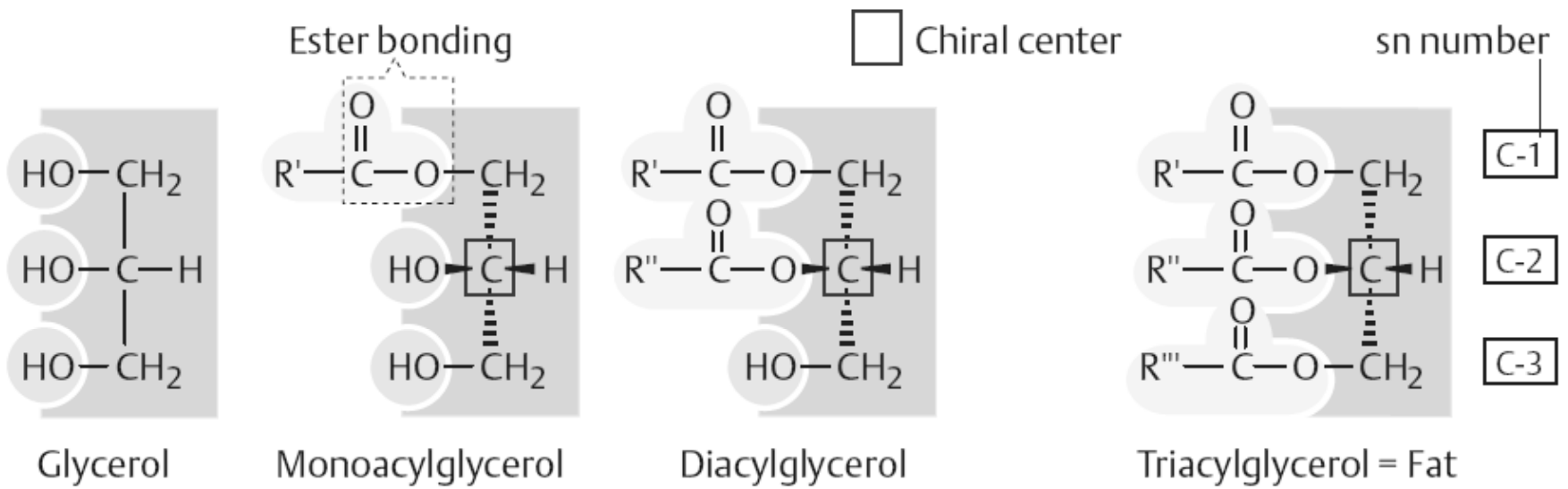
Not contained in lipids



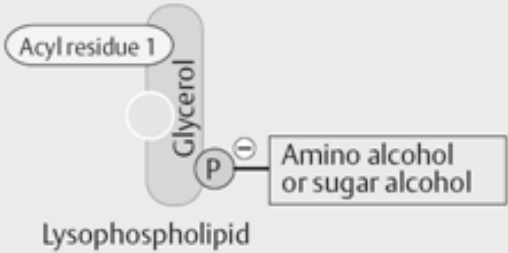
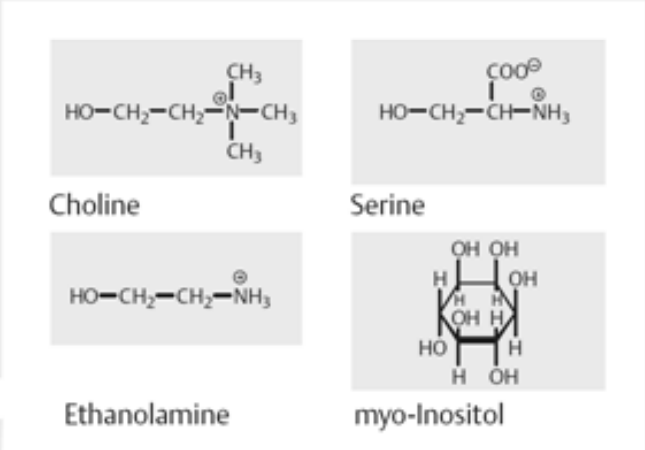
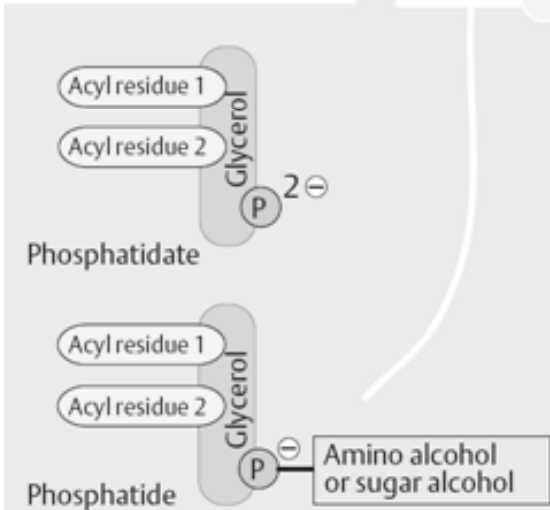
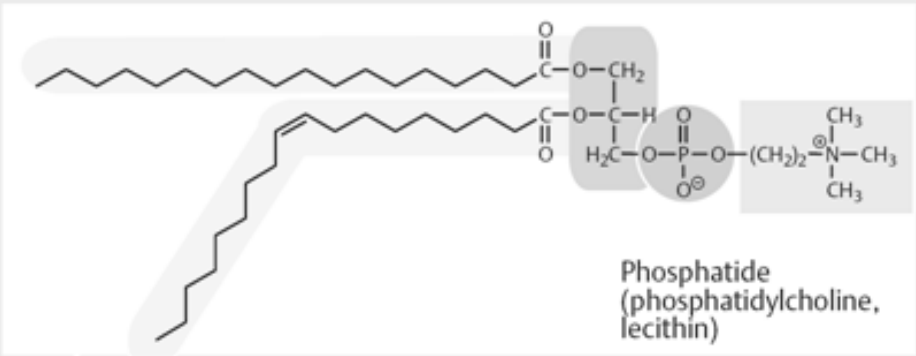
Caproic acid

★ Essential in human nutrition

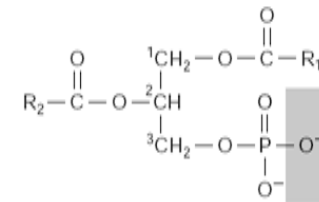
ACYLGLYCEROLS



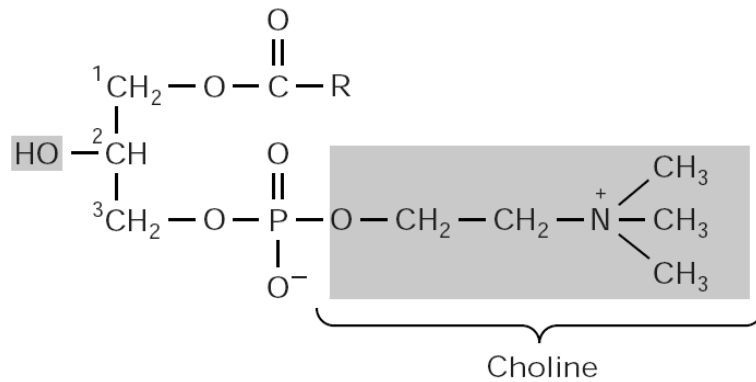
PHOSPHOLIPIDS



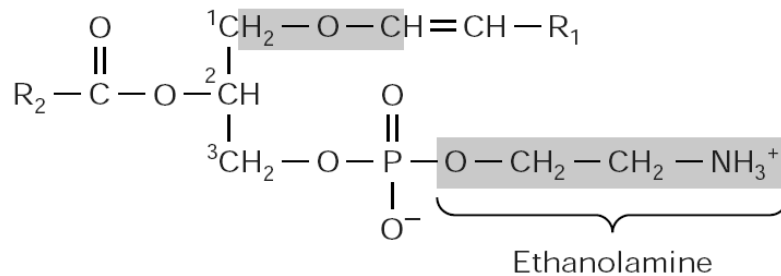
PHOSPHOLIPIDS



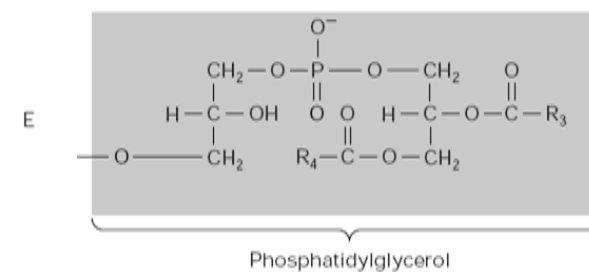
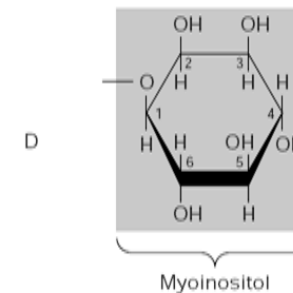
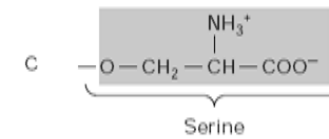
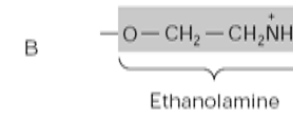
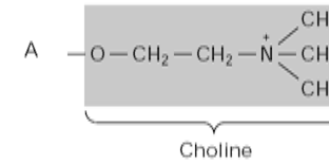
Phosphatidic acid



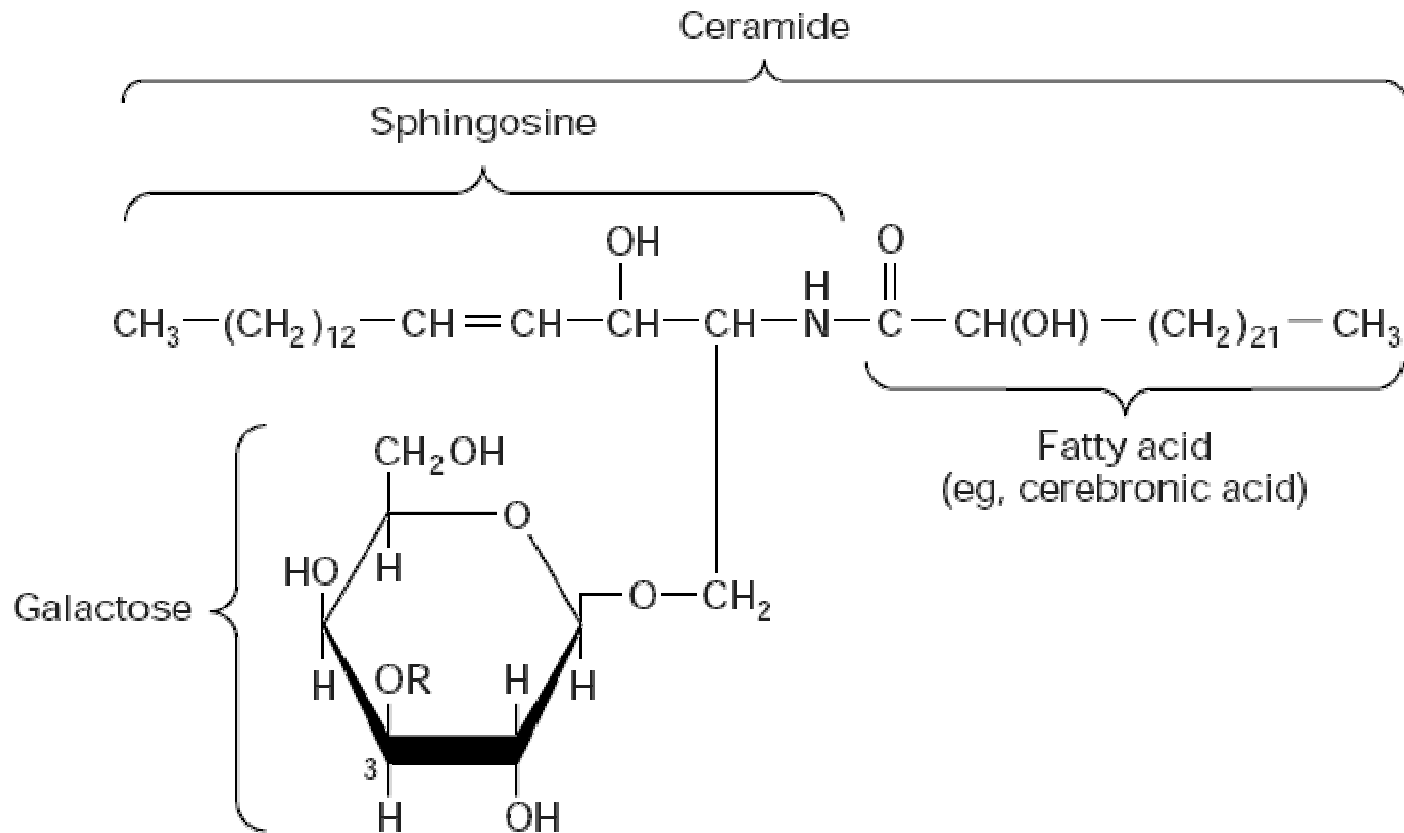
Lysophosphatidylcholine (lysolecithin).



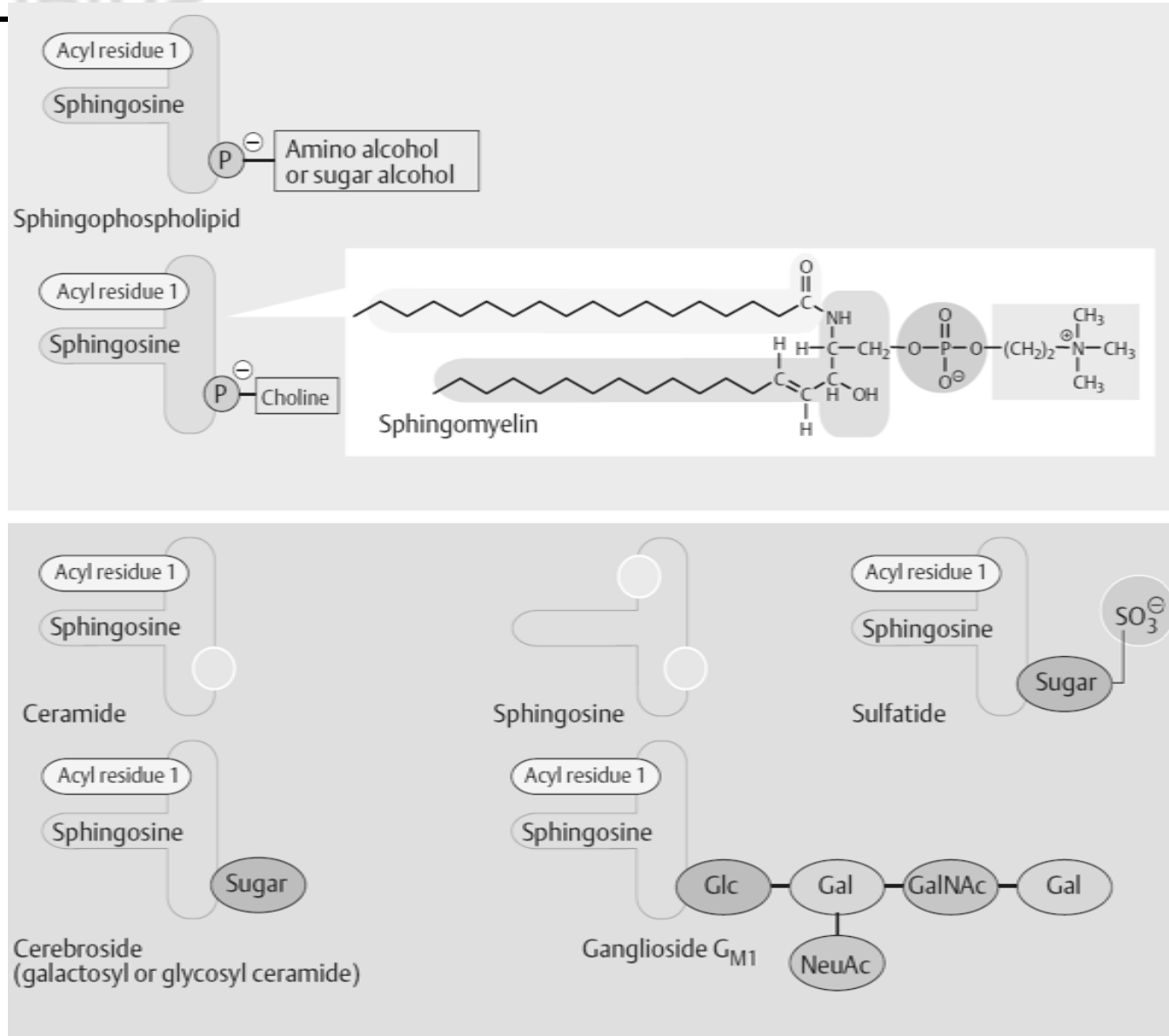
Plasmalogen.



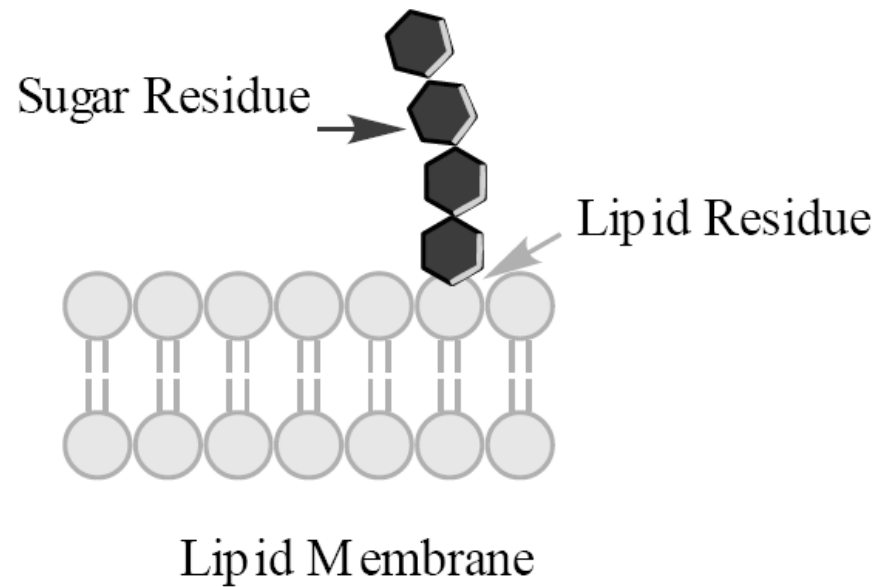
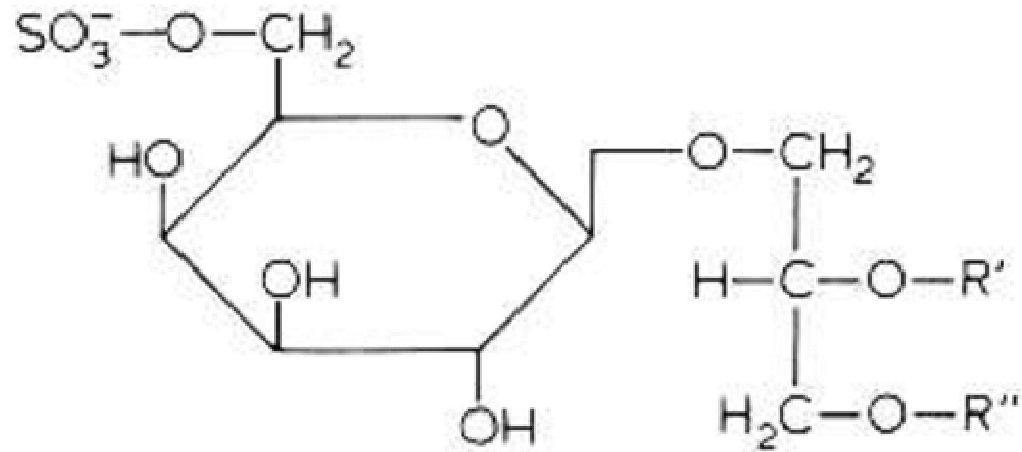
SPHINGOLIPIDS



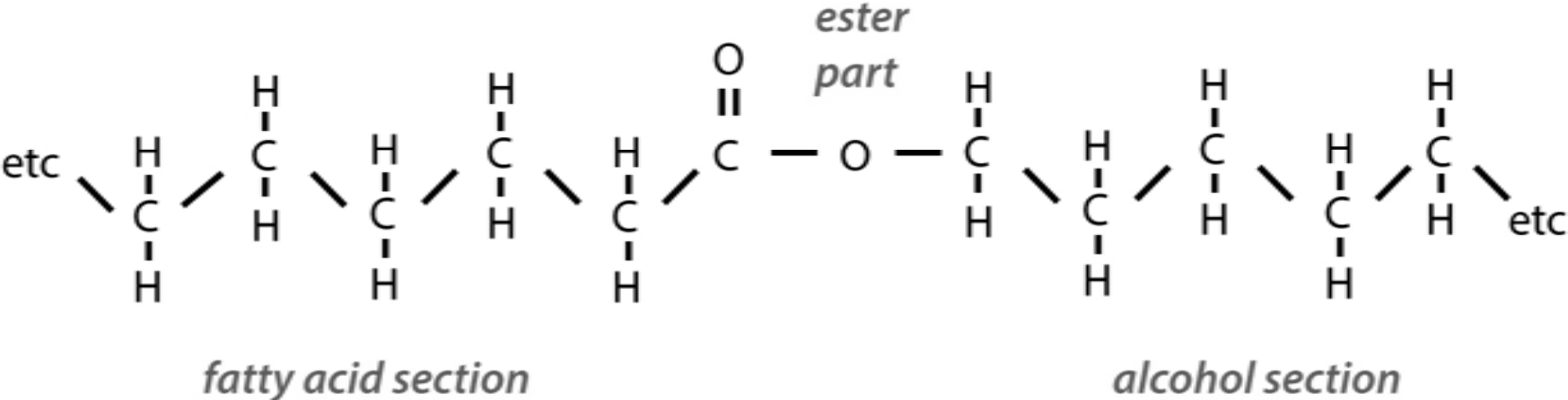
SPHINGOLIPIDS



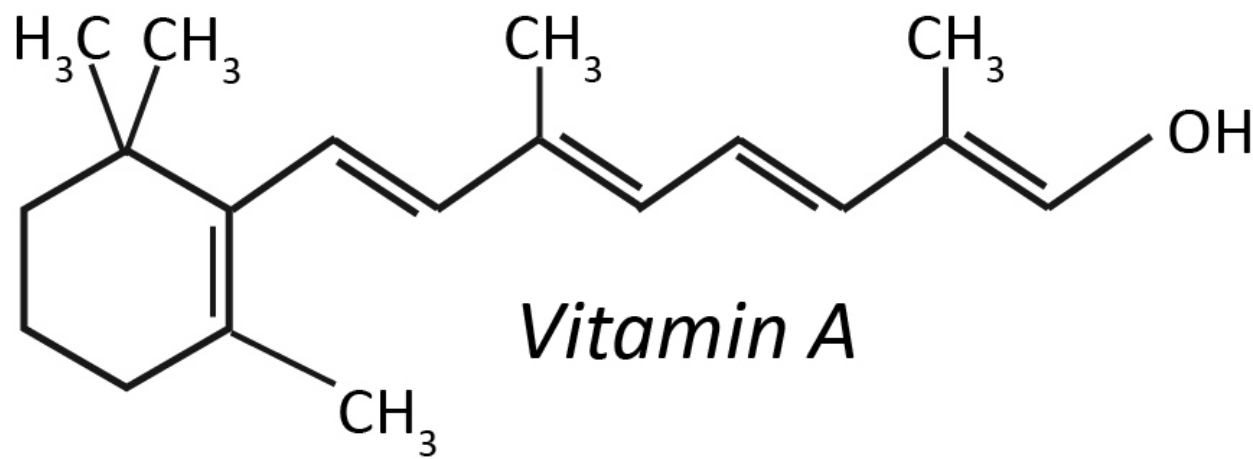
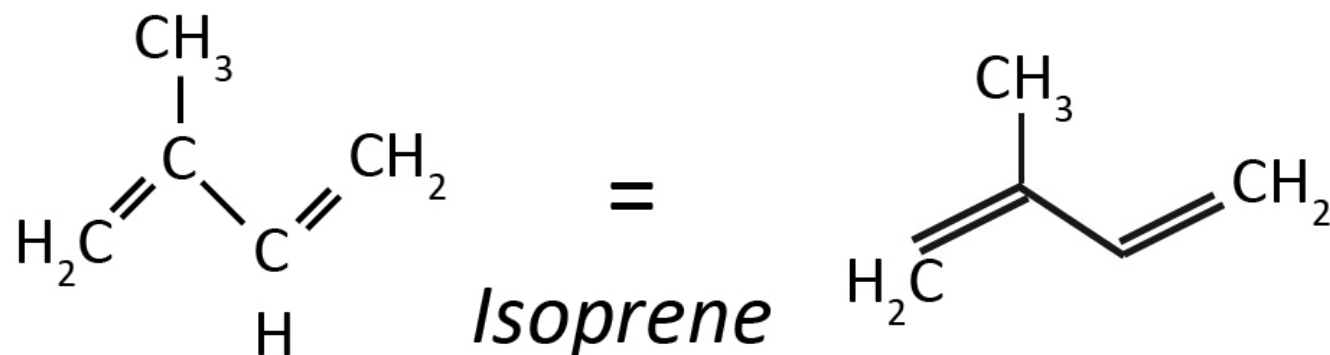
GLYCOLIPIDS



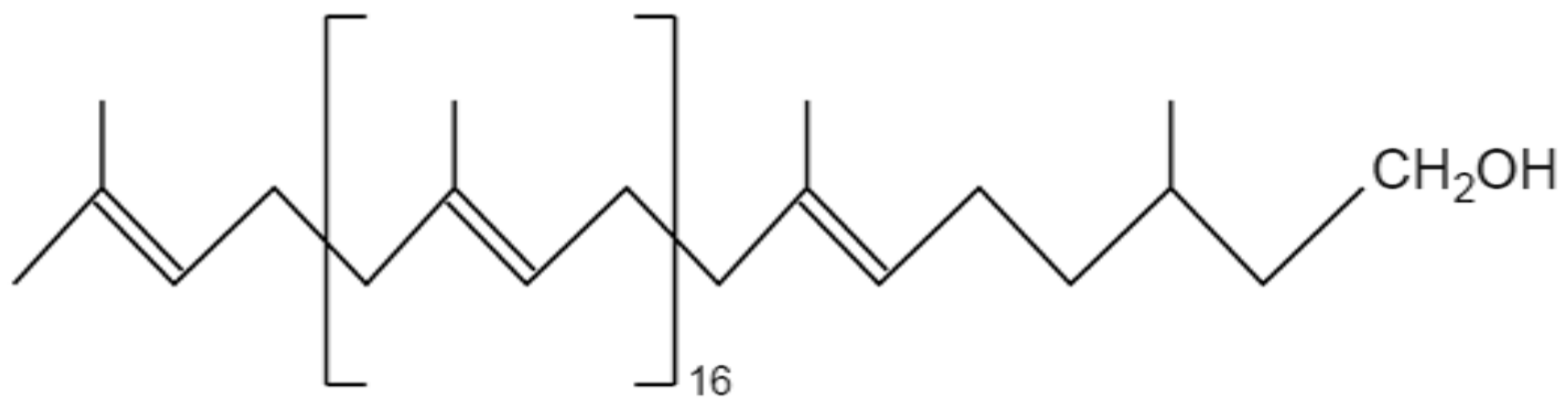
WAXES



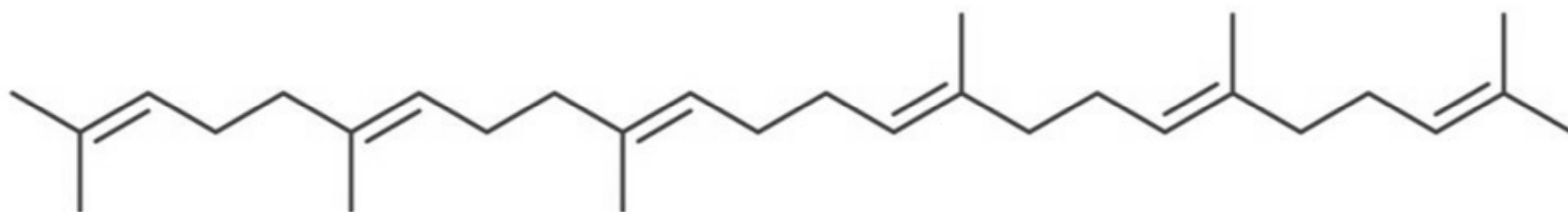
TERPENES



TERPENES

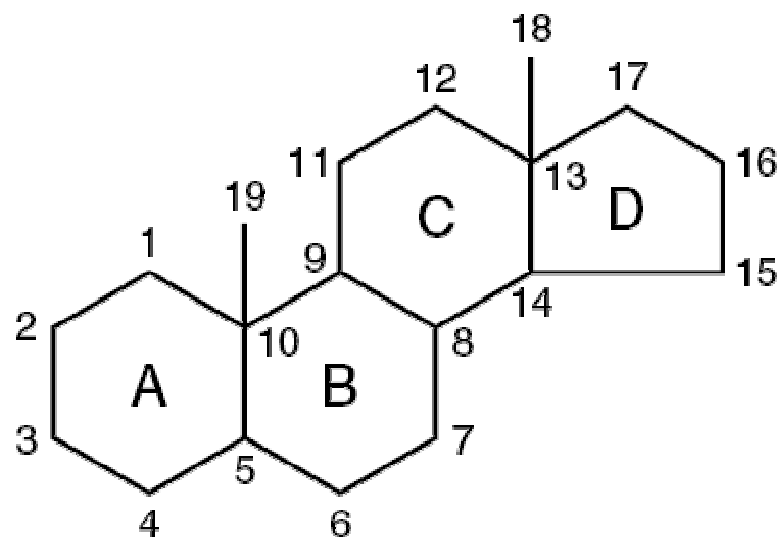


HYDROCARBONS



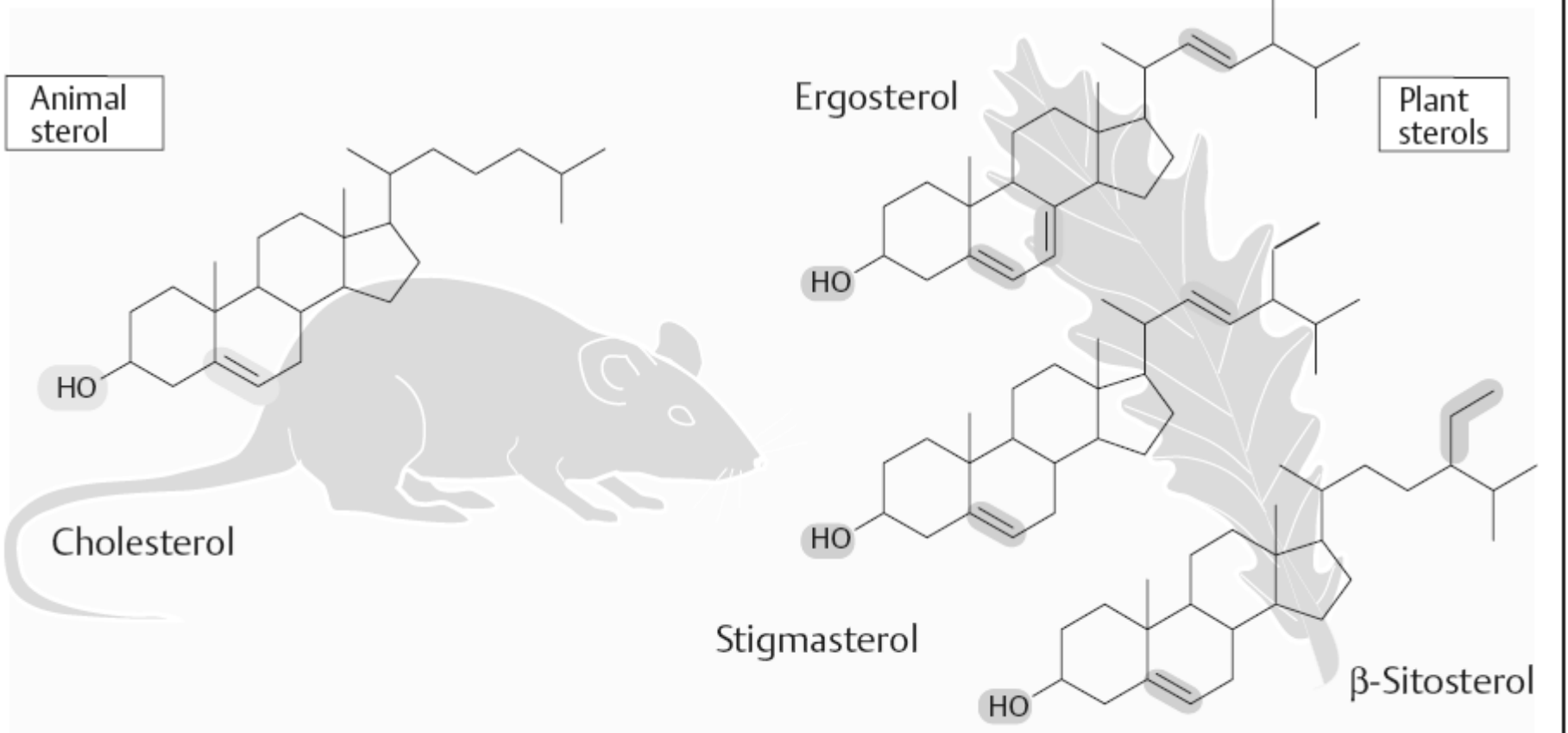
Squalene

STEROLS



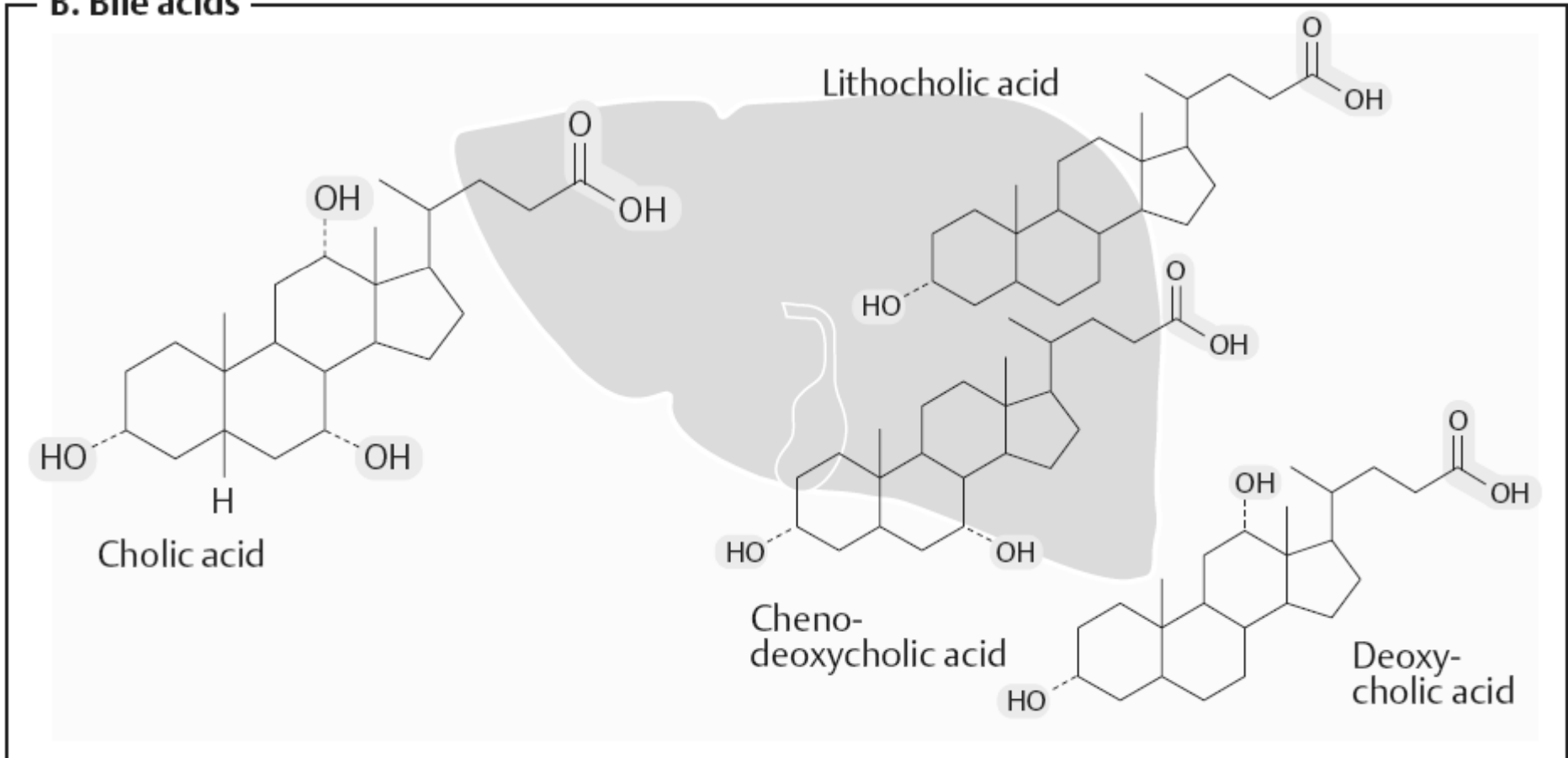
STEROLS

A. Sterols



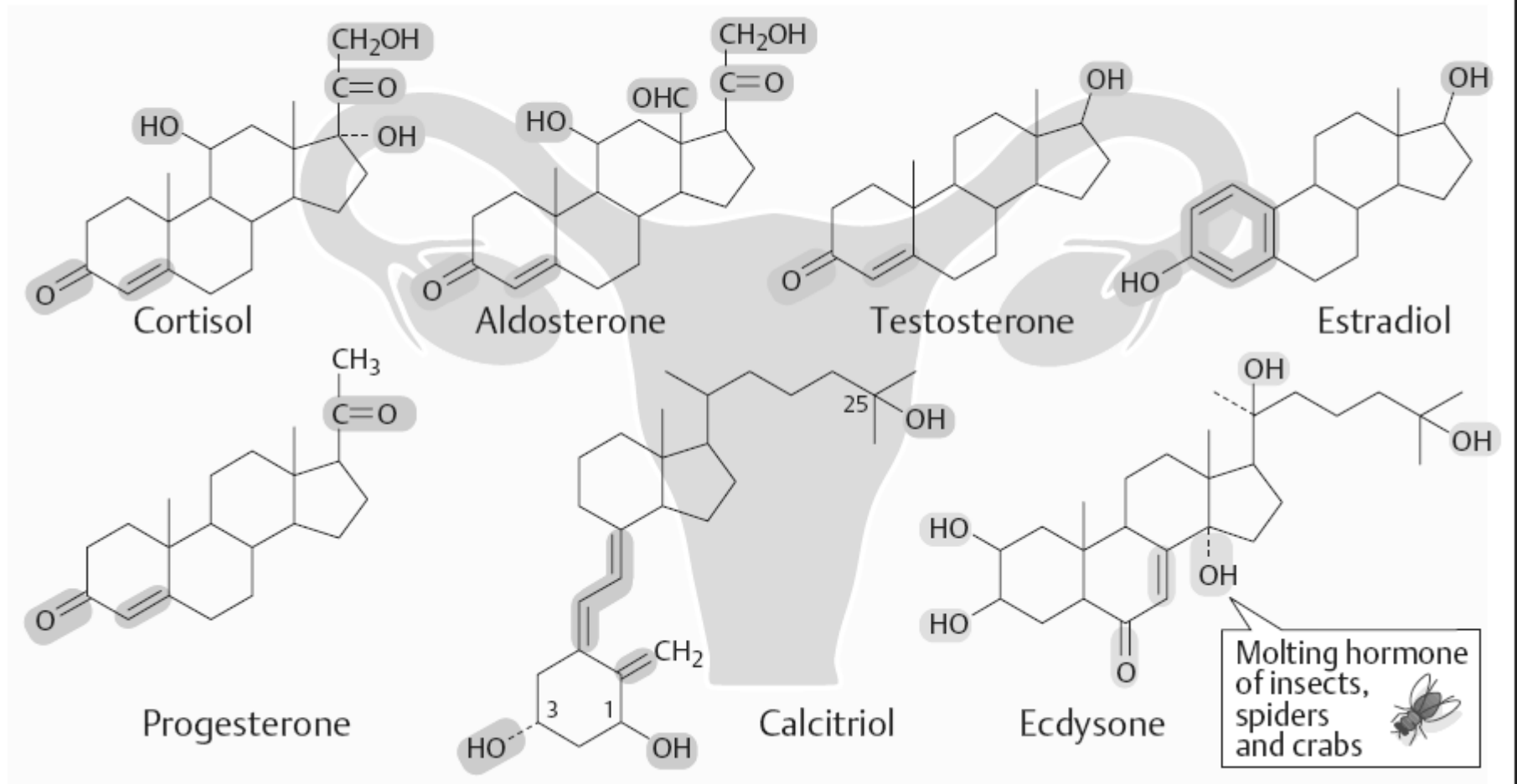
STEROLS

B. Bile acids

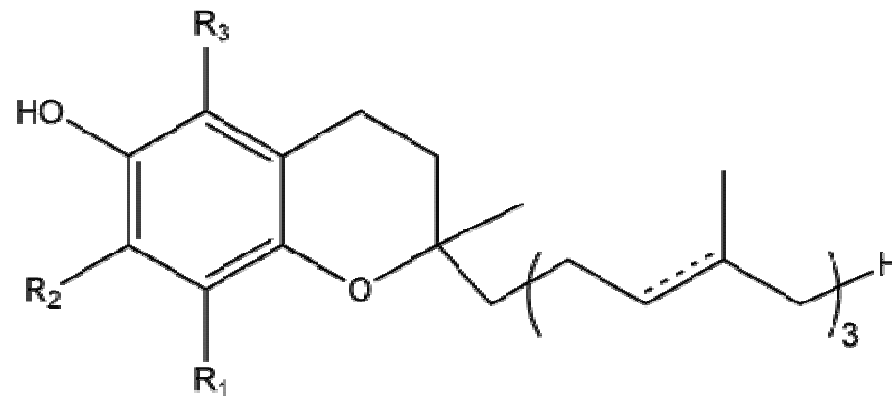


STEROLS

C. Steroid hormones



TOCOPHEROLS



α -tocopherol, $R_1 = R_2 = R_3 = \text{CH}_3$

α -tocotrienol, $R_1 = R_2 = R_3 = \text{CH}_3$

β -tocopherol, $R_1 = R_3 = \text{CH}_3$; $R_2 = \text{H}$

β -tocotrienol, $R_1 = R_3 = \text{CH}_3$; $R_2 = \text{H}$

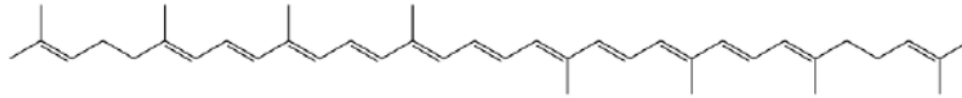
γ -tocopherol, $R_1 = R_2 = \text{CH}_3$ $R_3 = \text{H}$

γ -tocotrienol, $R_1 = R_2 = \text{CH}_3$ $R_3 = \text{H}$

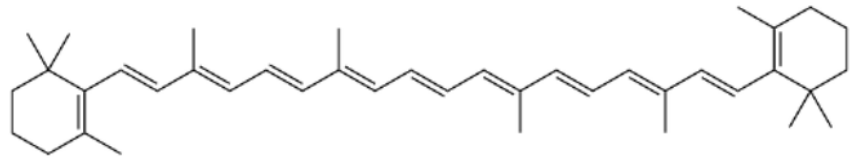
δ -tocopherol, $R_1 = R_2 = R_3 = \text{H}$

δ -tocotrienol, $R_1 = R_2 = R_3 = \text{H}$

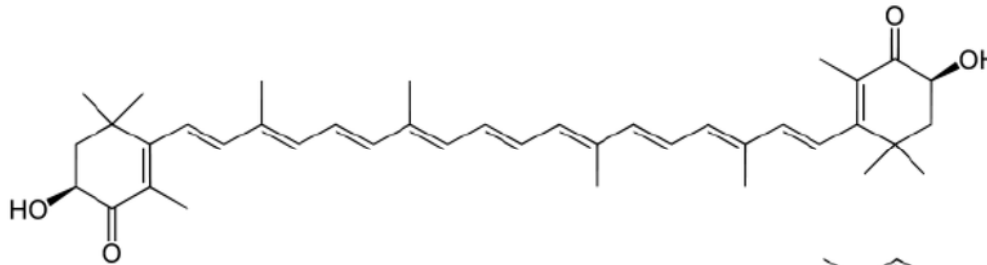
CAROTENOIDS



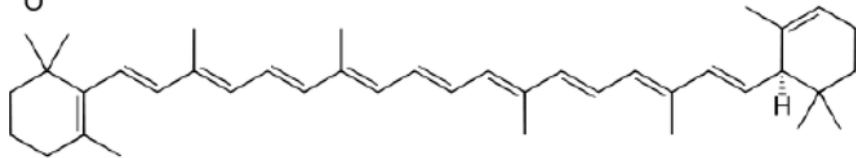
Lycopene



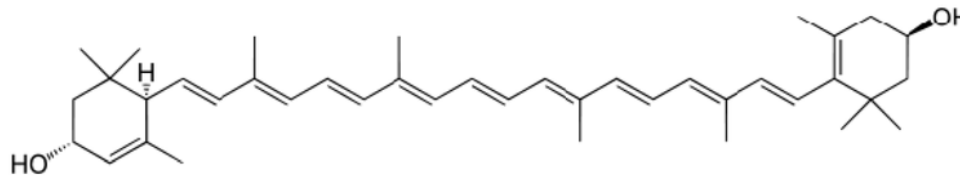
β -carotene



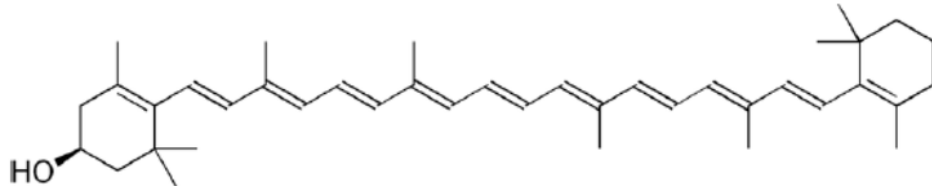
Astaxanthin



α -carotene

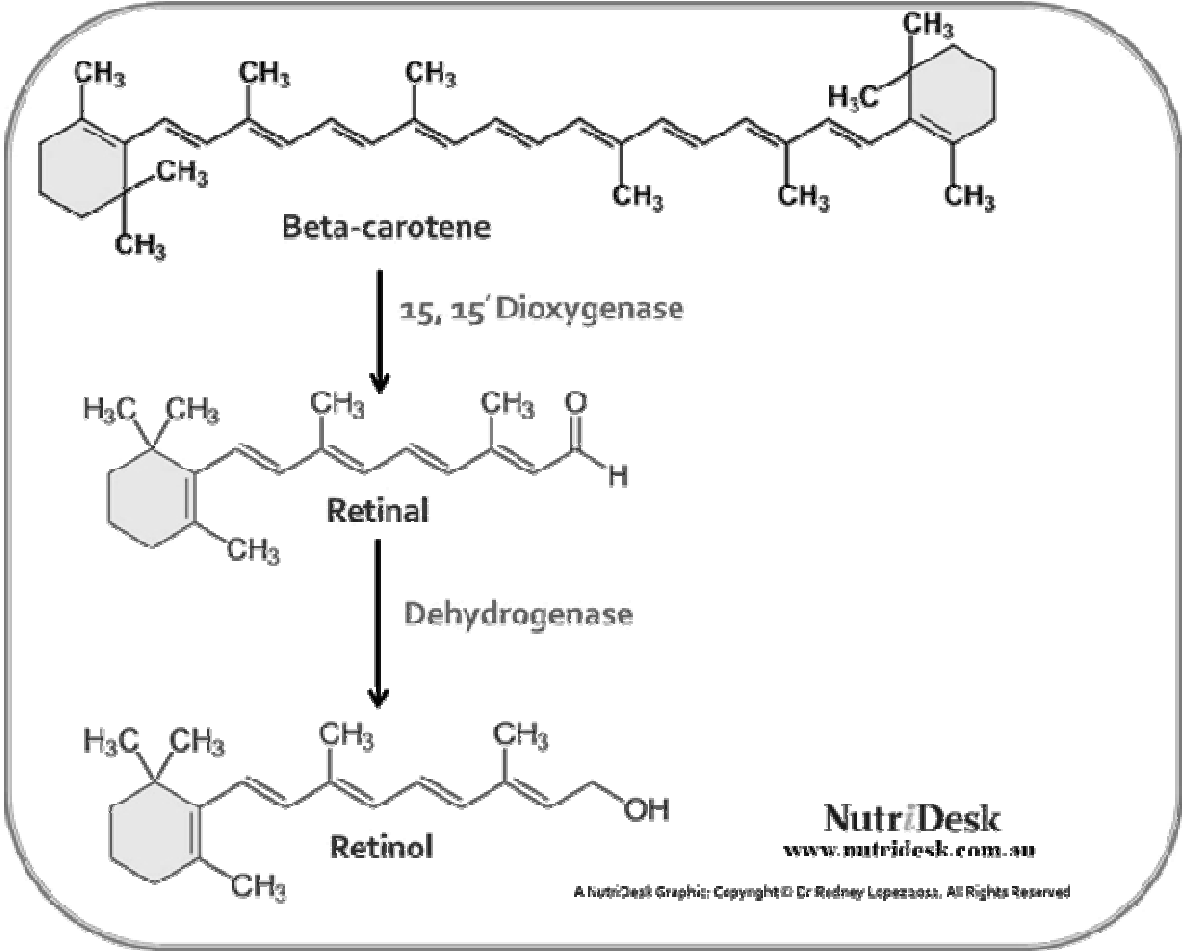


Lutein

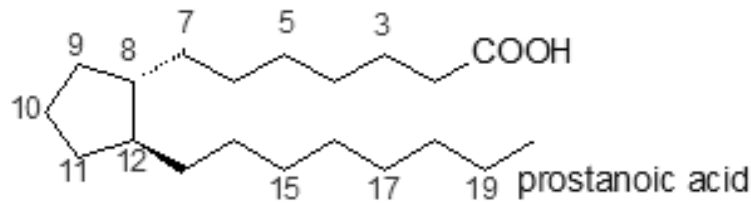


β -cryptoxanthin

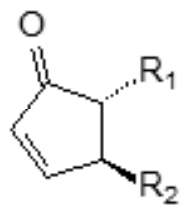
CAROTENOIDS



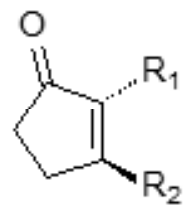
PROSTAGLANDINS



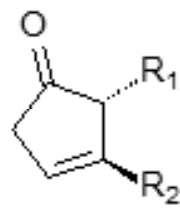
The prostaglandins



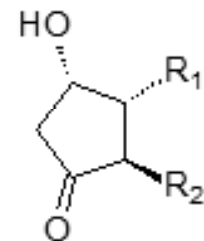
PGA



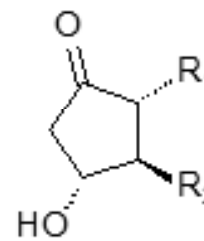
PGB



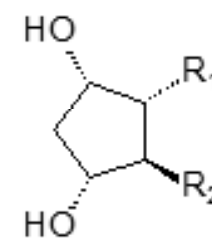
PGC



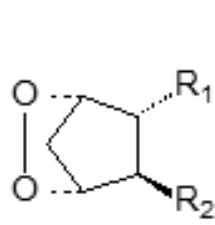
PGD



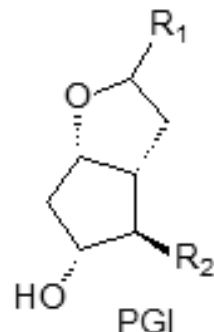
PGE



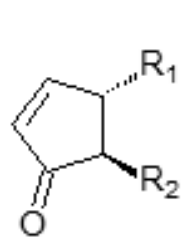
PGF_α



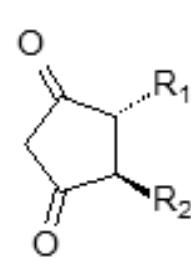
PGG
PGH



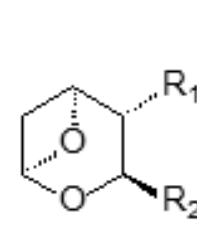
PGI



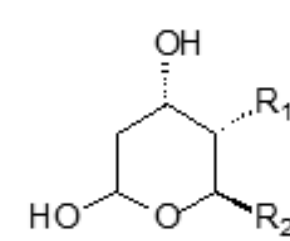
PGJ



PGK



TXA



TXB