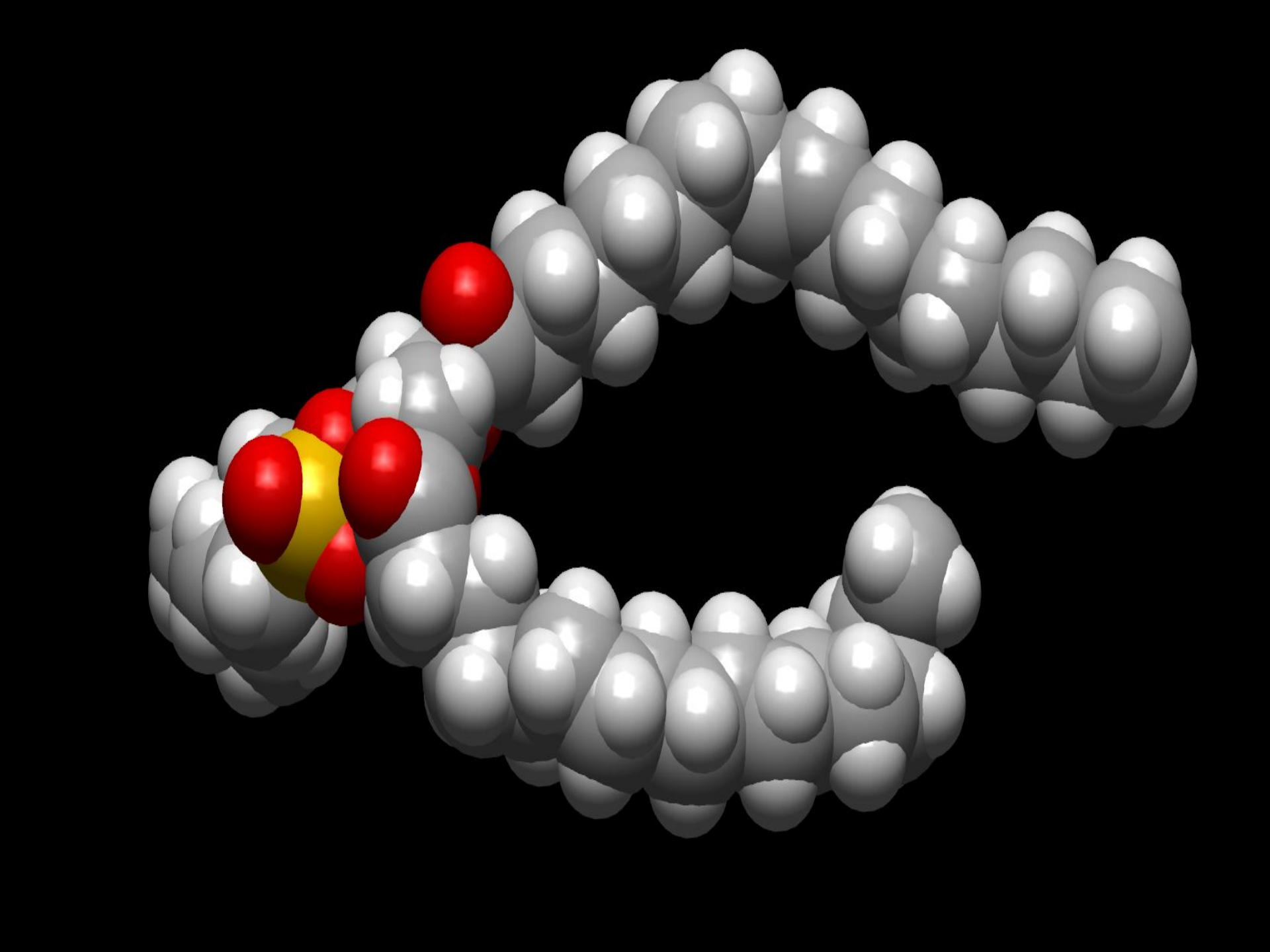
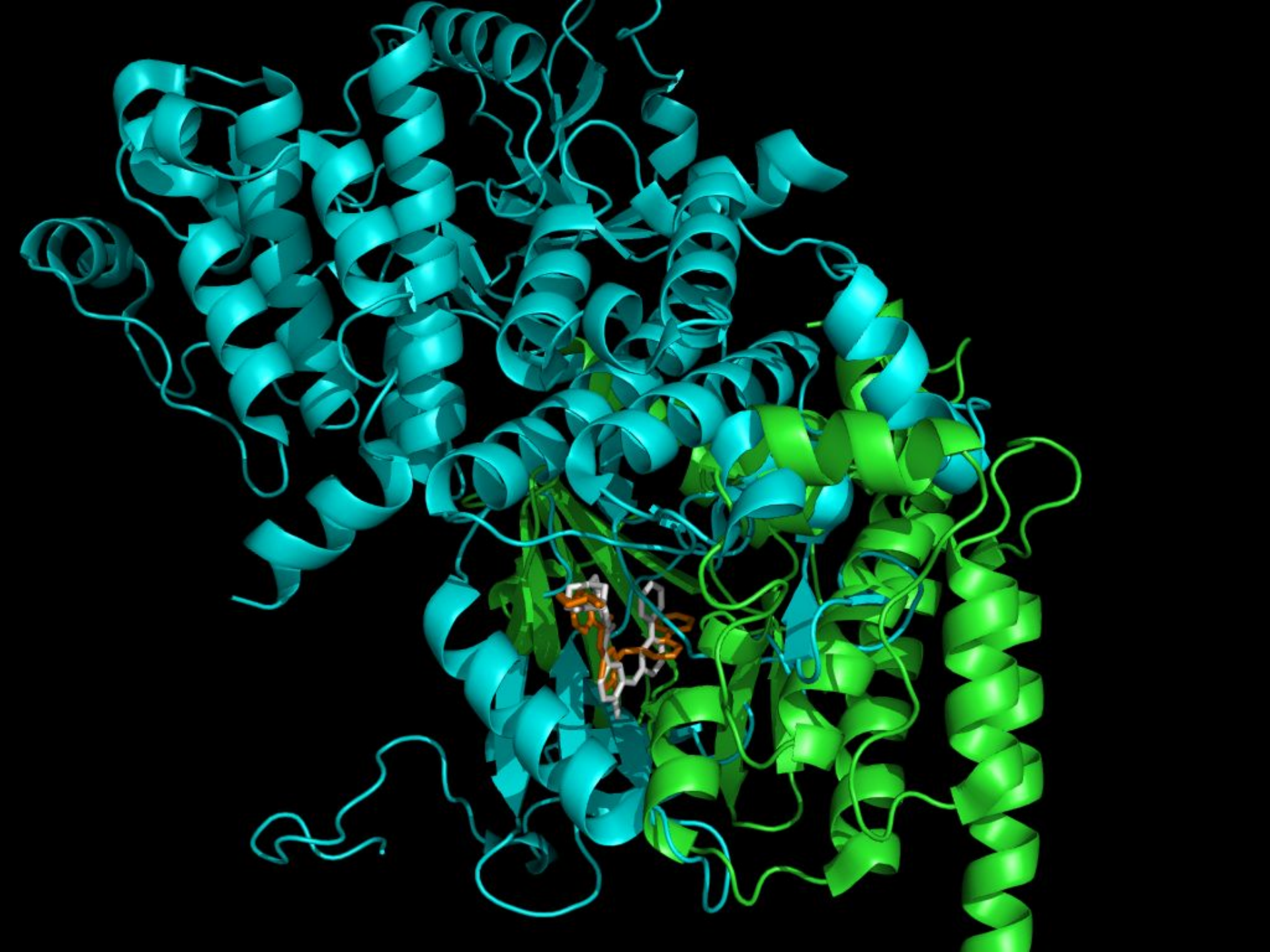
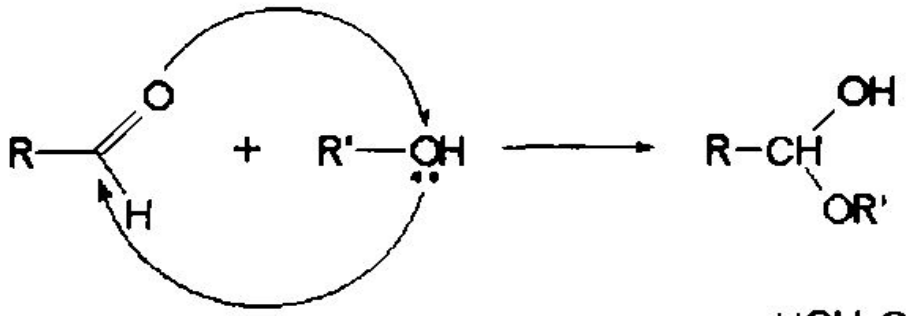
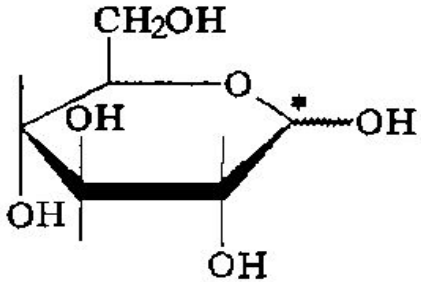
КРАТКАЯ ХАРАКТЕРИСТИКА ЛИПИДОВ

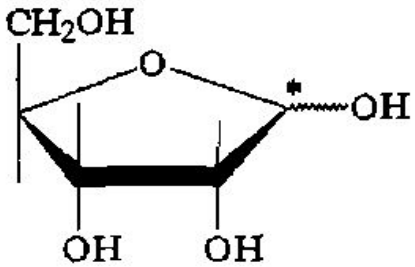




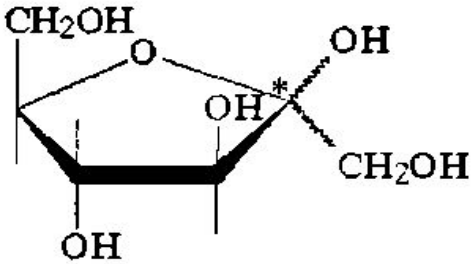




D-глюкоза
(D-глюкопираноза)

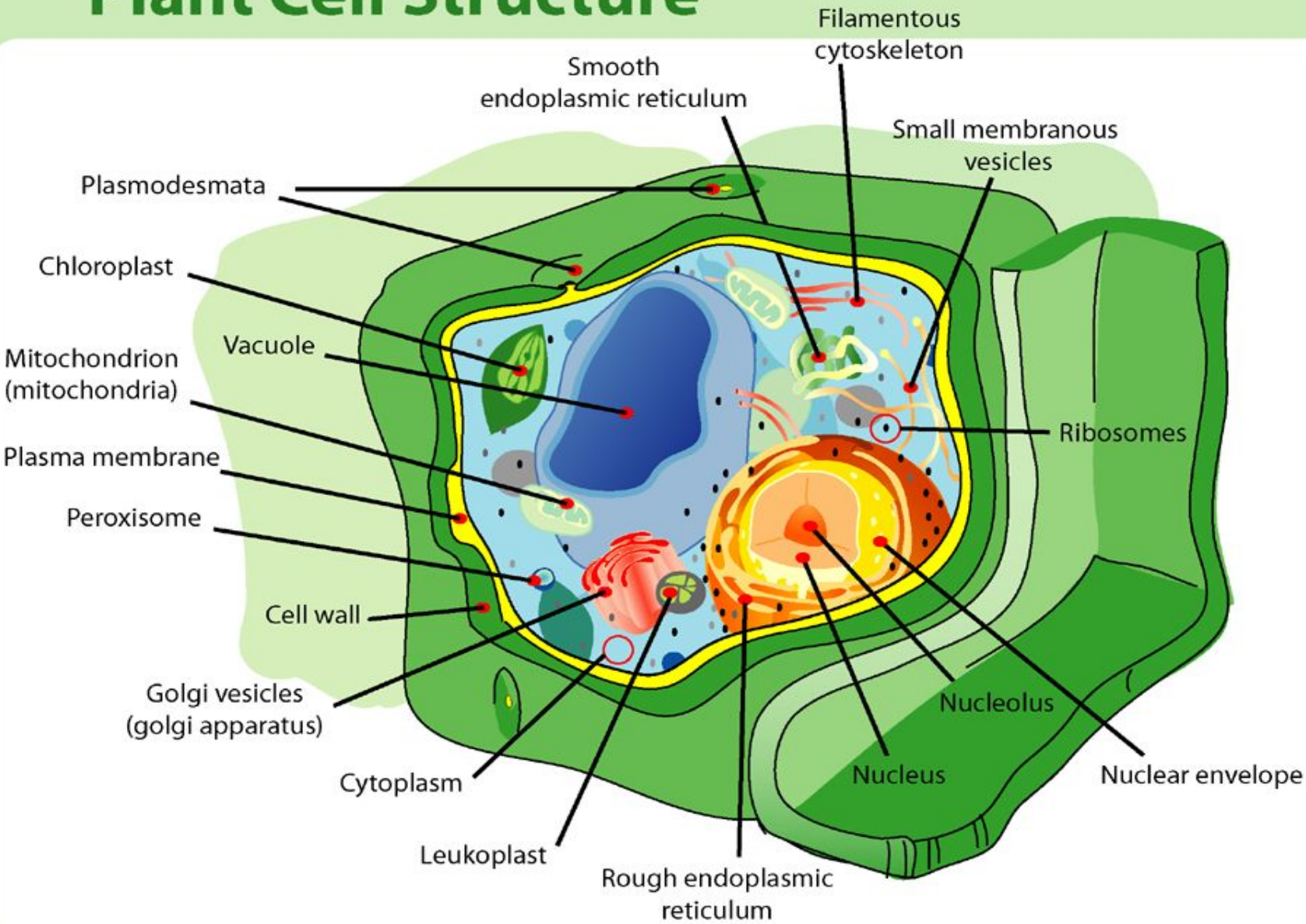


D-рибоза
(D-рибофураноза)

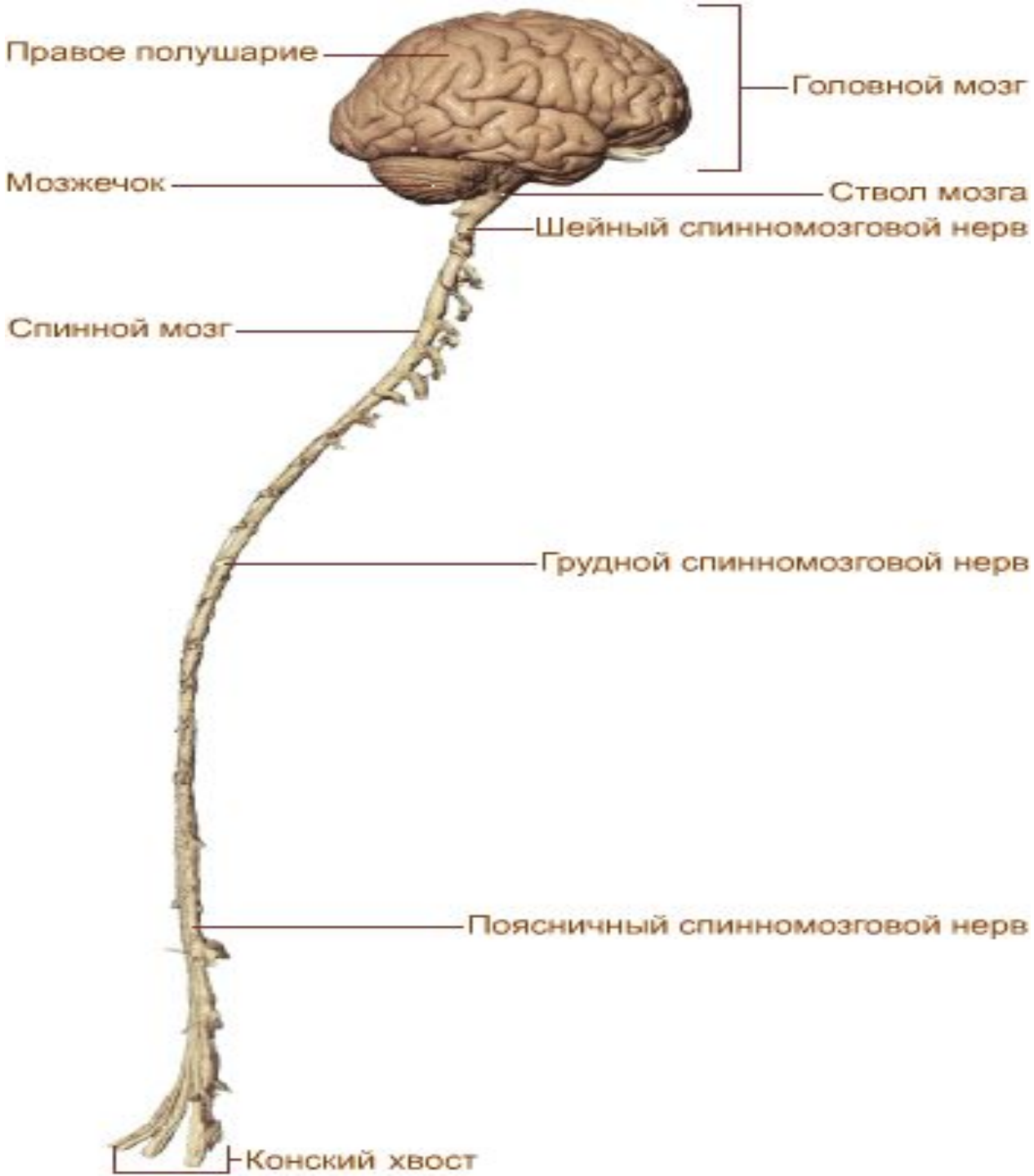


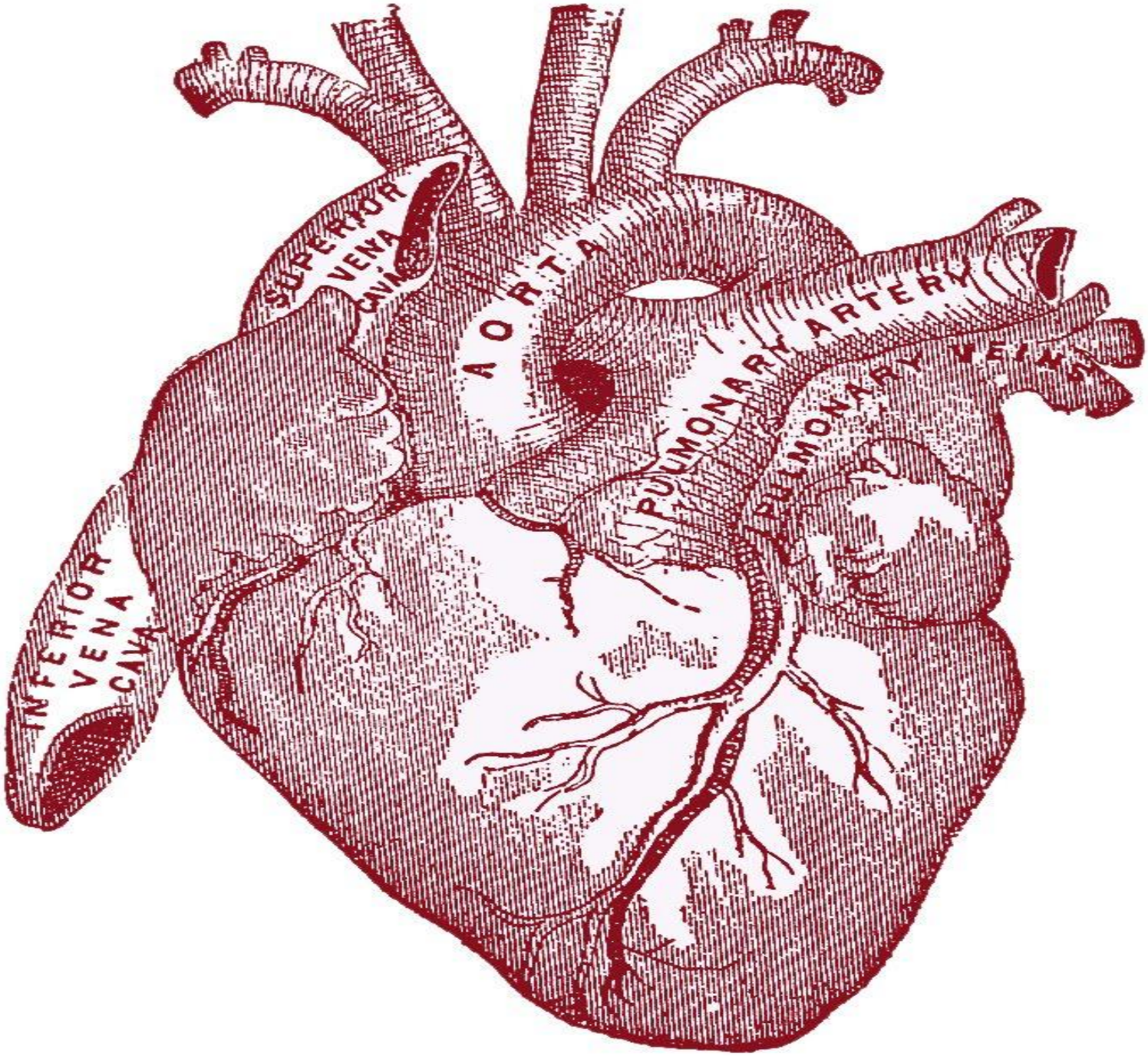
D-фруктоза
(D-фруктофураноза)

Plant Cell Structure

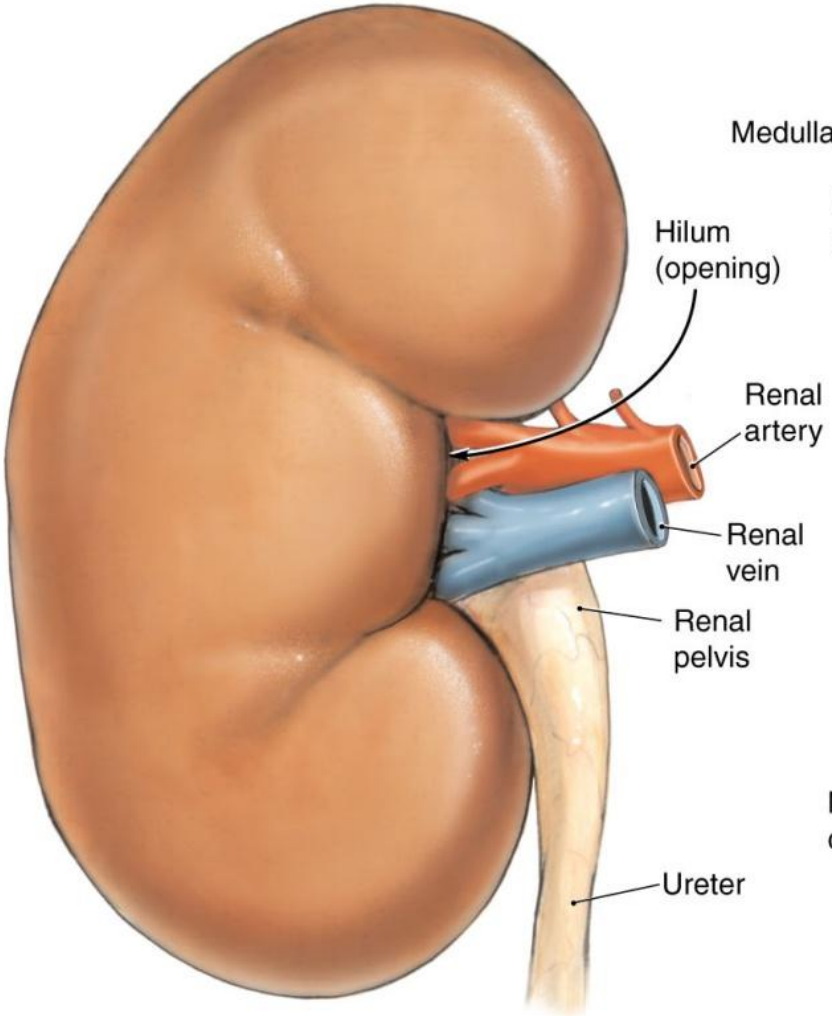


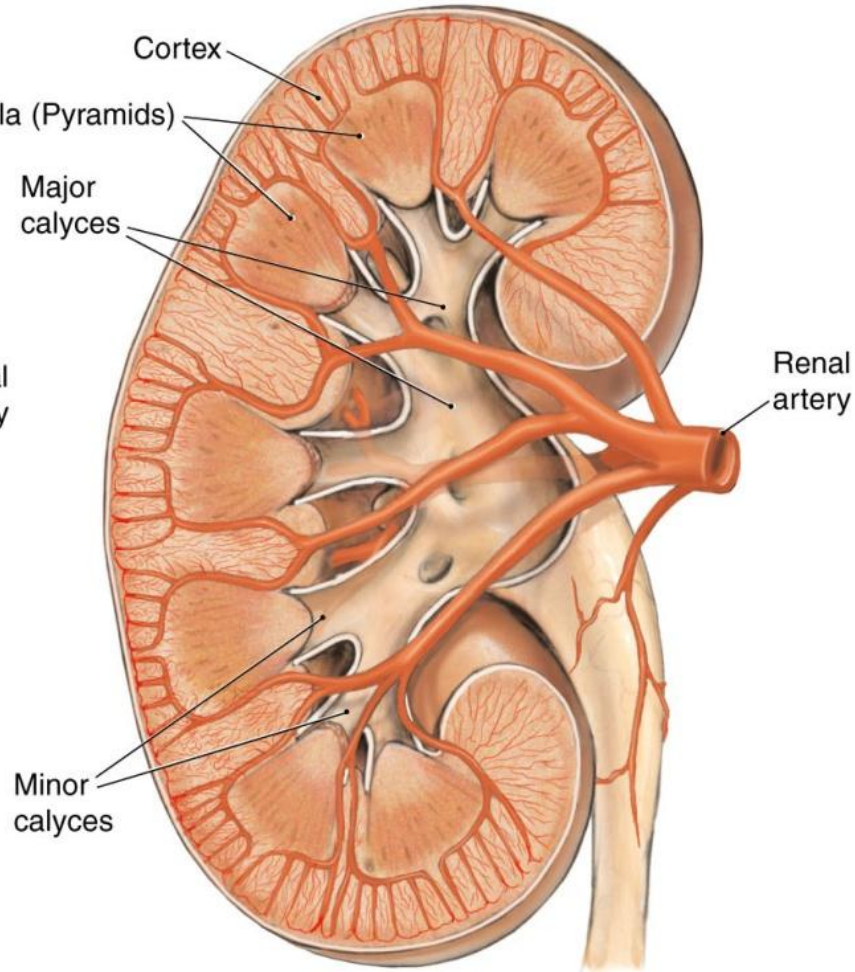
SUBWAY


Правое полушарие
Головной мозг
Мозжечок
Ствол мозга
Шейный спинномозговой нерв
Спинной мозг
Грудной спинномозговой нерв
Поясничный спинномозговой нерв
Конский хвост


SUPERIOR VENA CAVA
AORTA
PULMONARY ARTERY
PULMONARY VEINS
INFERIOR VENA CAVA

The Right Kidney





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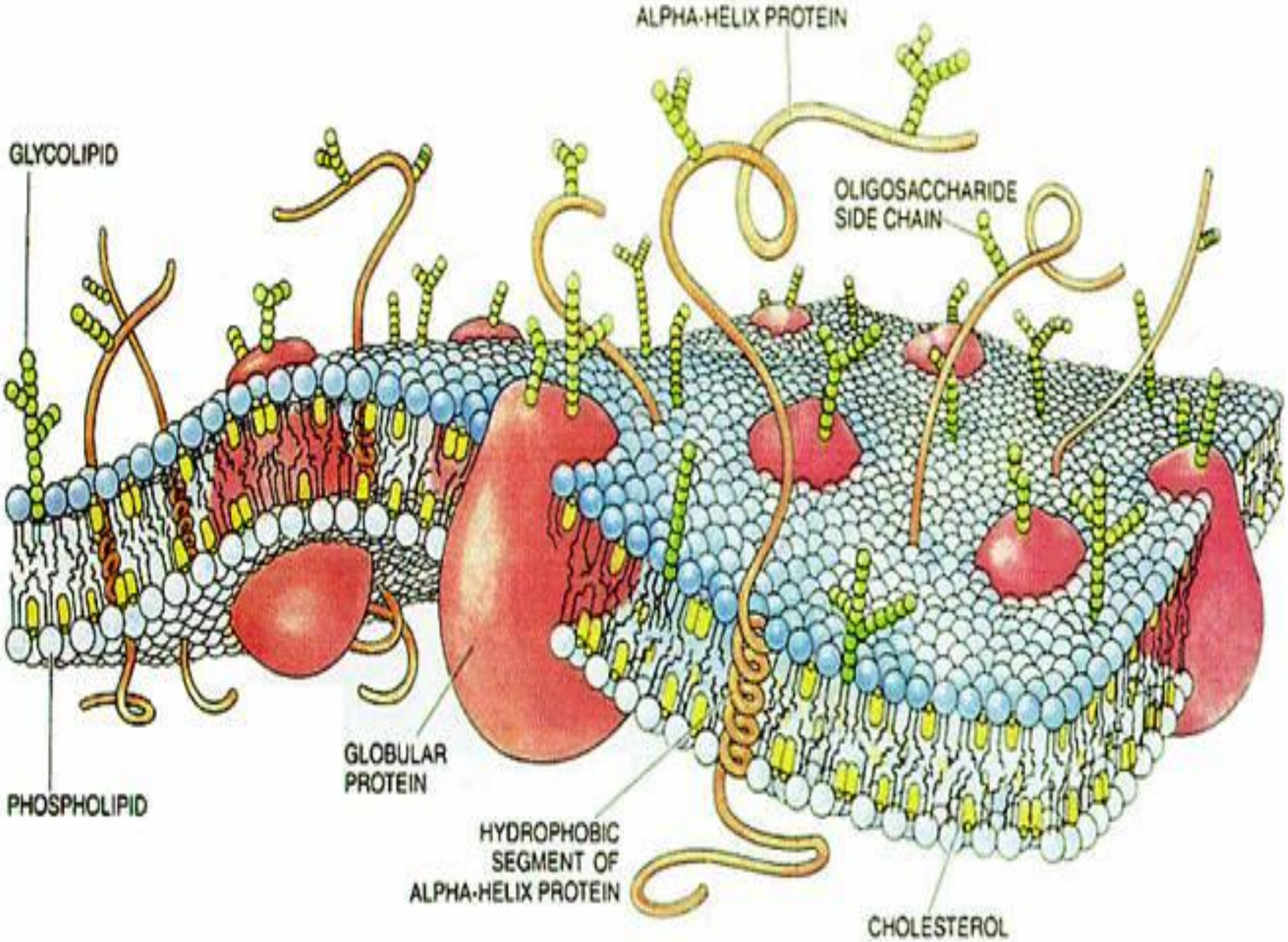
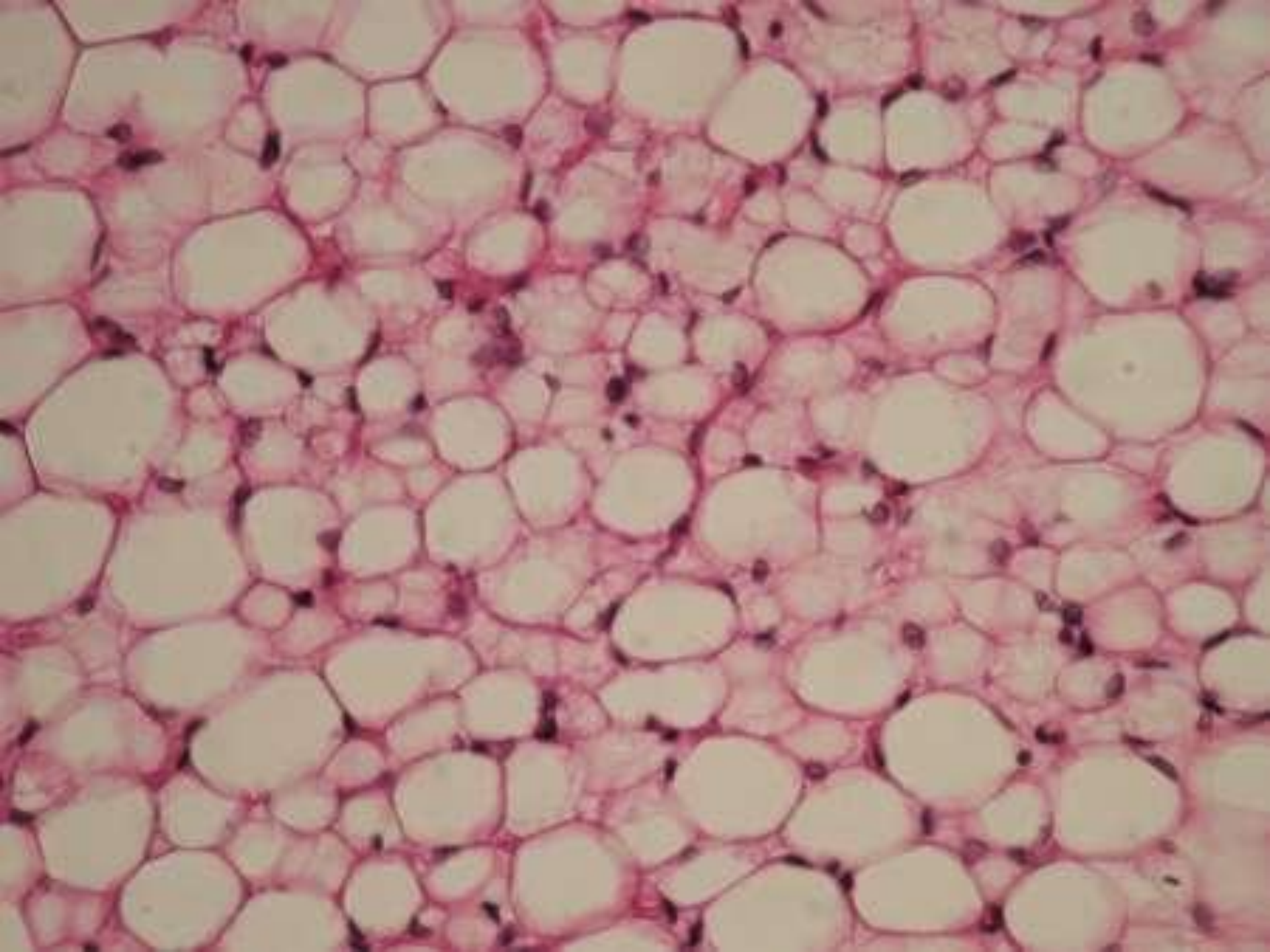
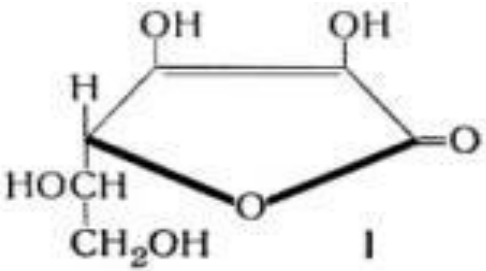
BLOOD SUPPLY

INTERNAL STRUCTURE

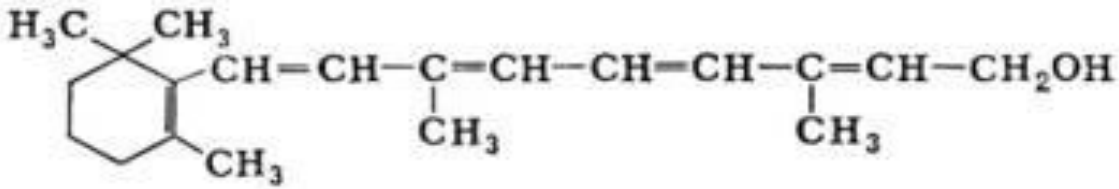

ALPHA-HELIX PROTEIN
GLYCOLIPID
OLIGOSACCHARIDE
SIDE CHAIN
GLOBULAR
PROTEIN
PHOSPHOLIPID
HYDROPHOBIC
SEGMENT OF
ALPHA-HELIX PROTEIN
CHOLESTEROL



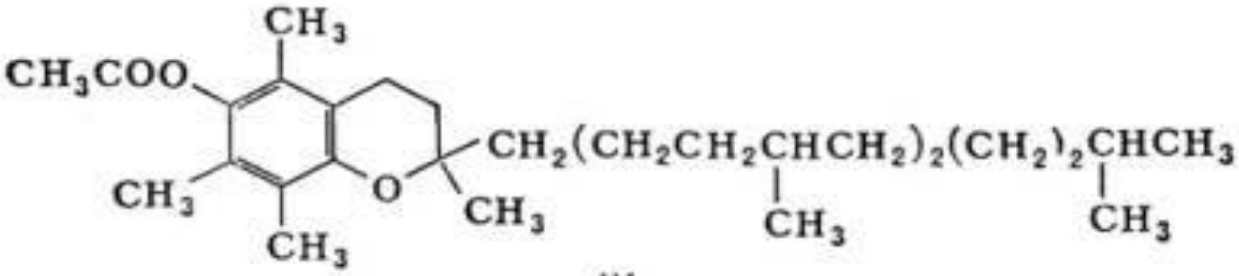


I

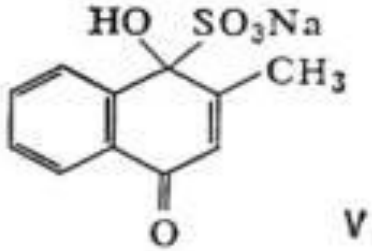
$(CH_3)_2C{=}CH(CH_2)_2C(CH_3){=}CHCH{=}CHCOCH_3$ II



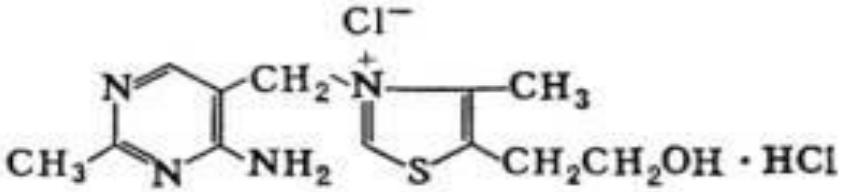
III



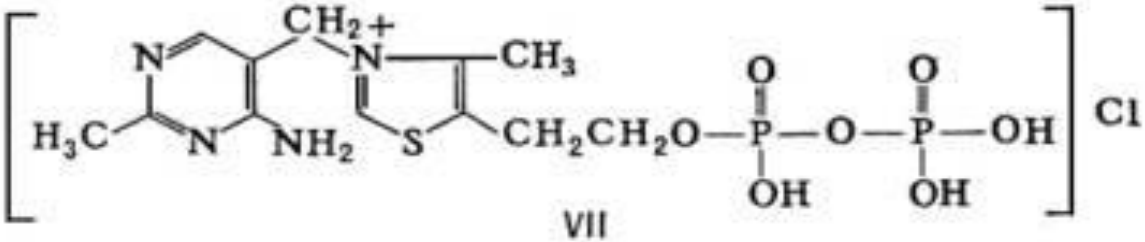
IV



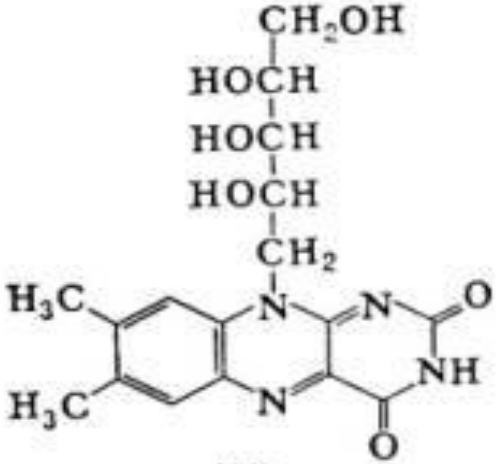
V



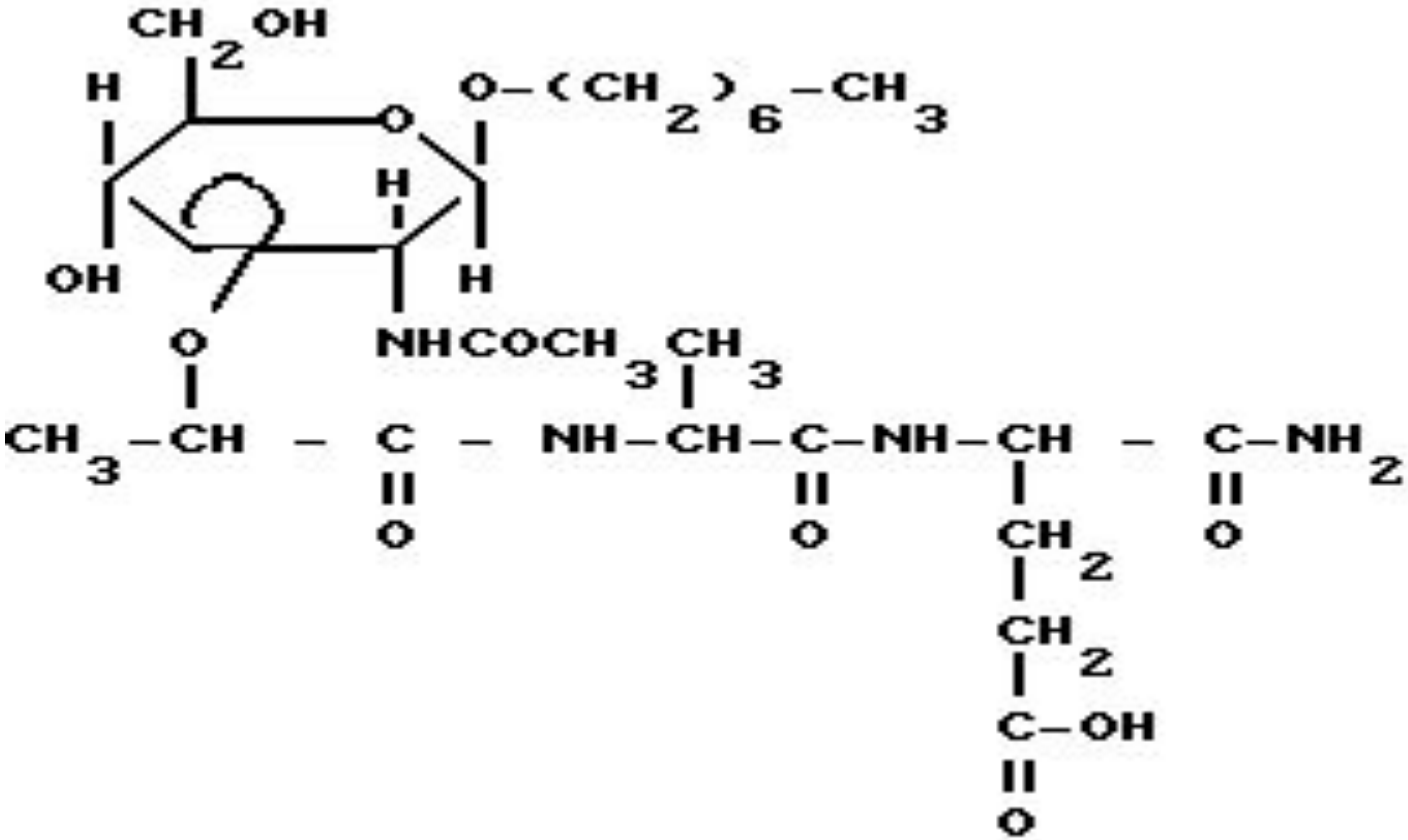
VI

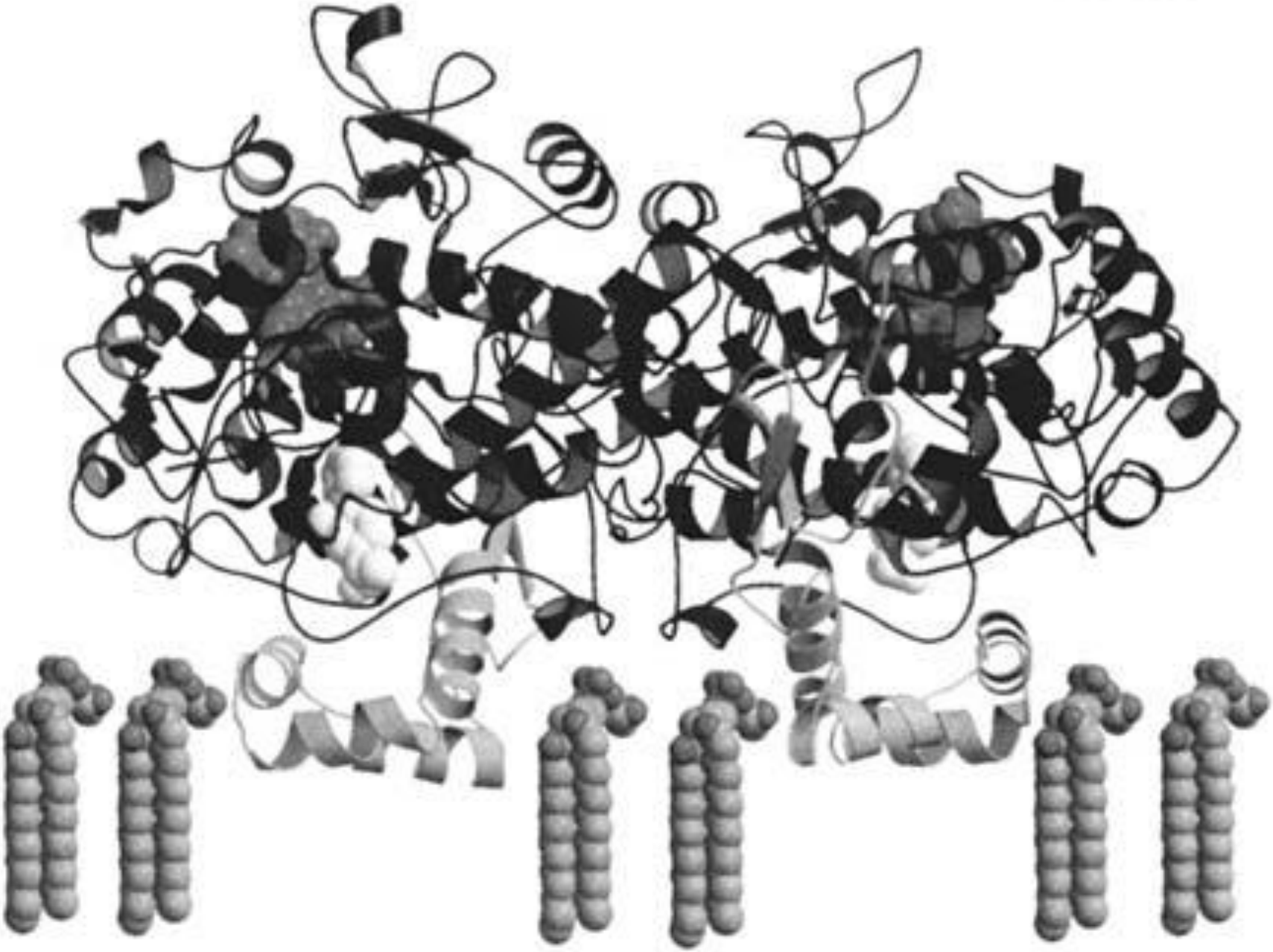


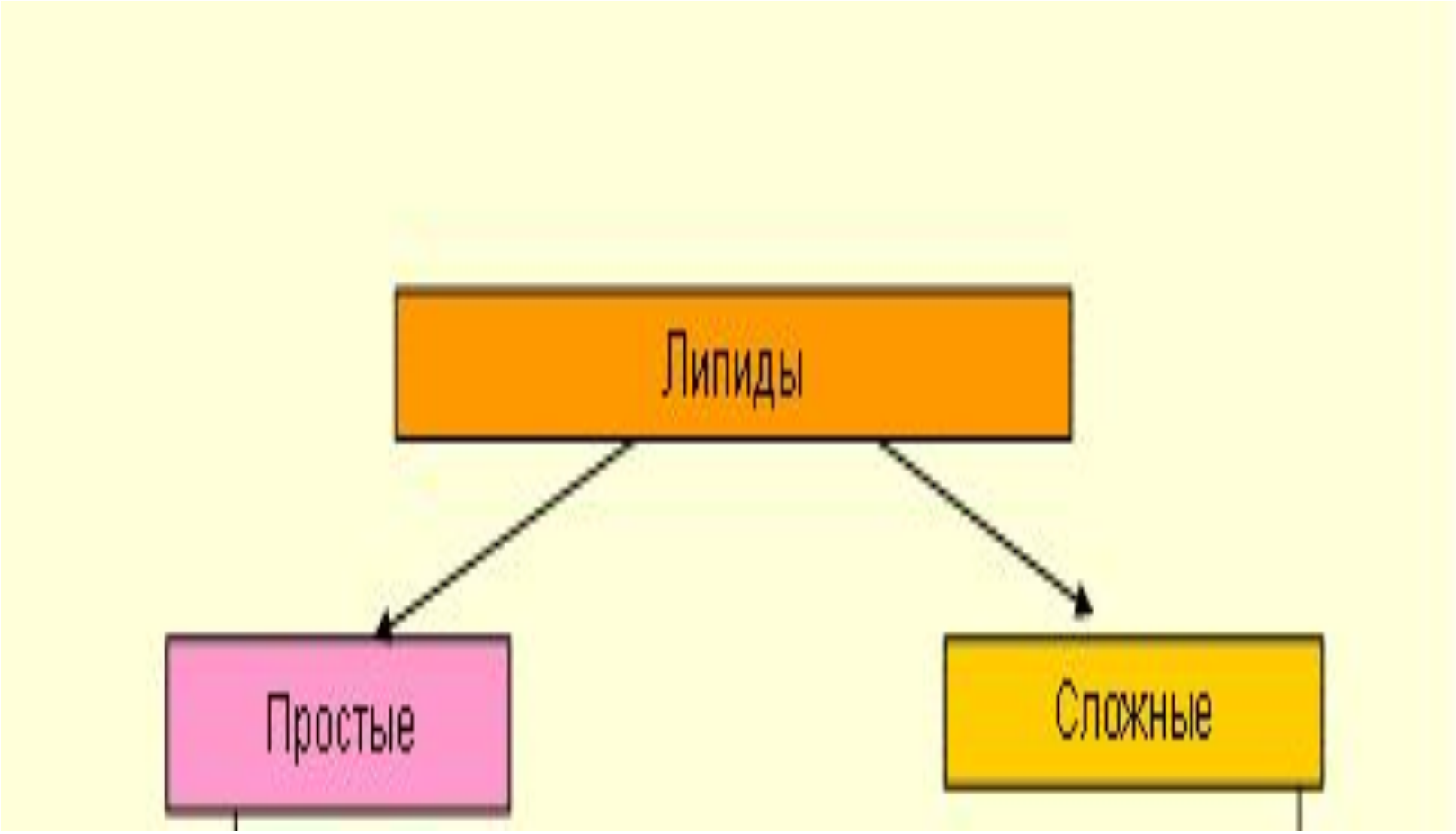
VII

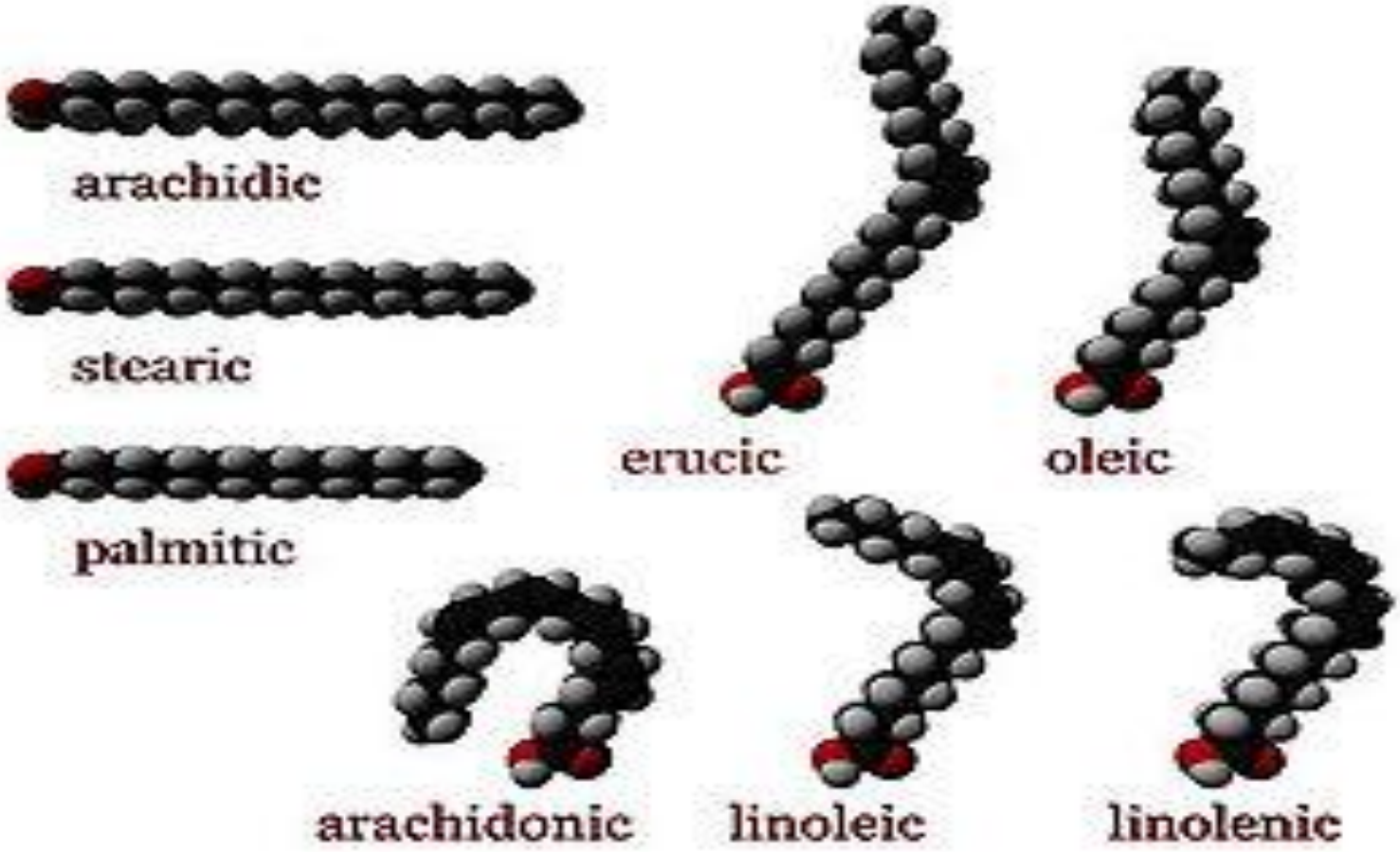


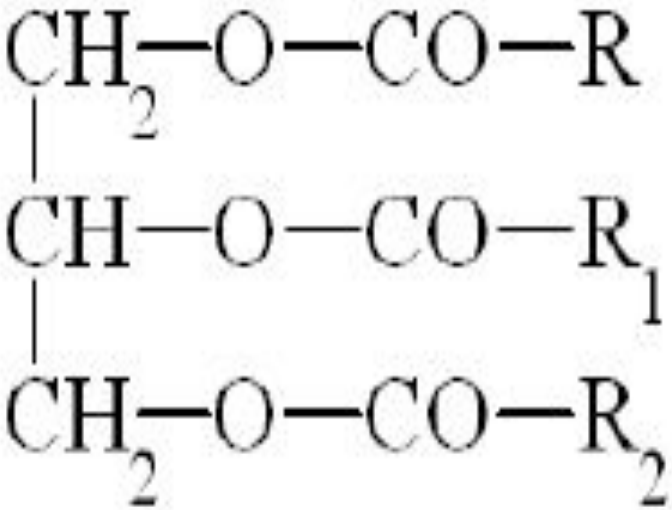
VIII


CH2OH
H
O
O-(CH2)6-CH3
H
OH
H
O
NHCOCH3
CH3
CH3-CH - C - NH-CH-C-NH-CH - C-NH2
O
O
CH2
CH2
C-OH
O
O



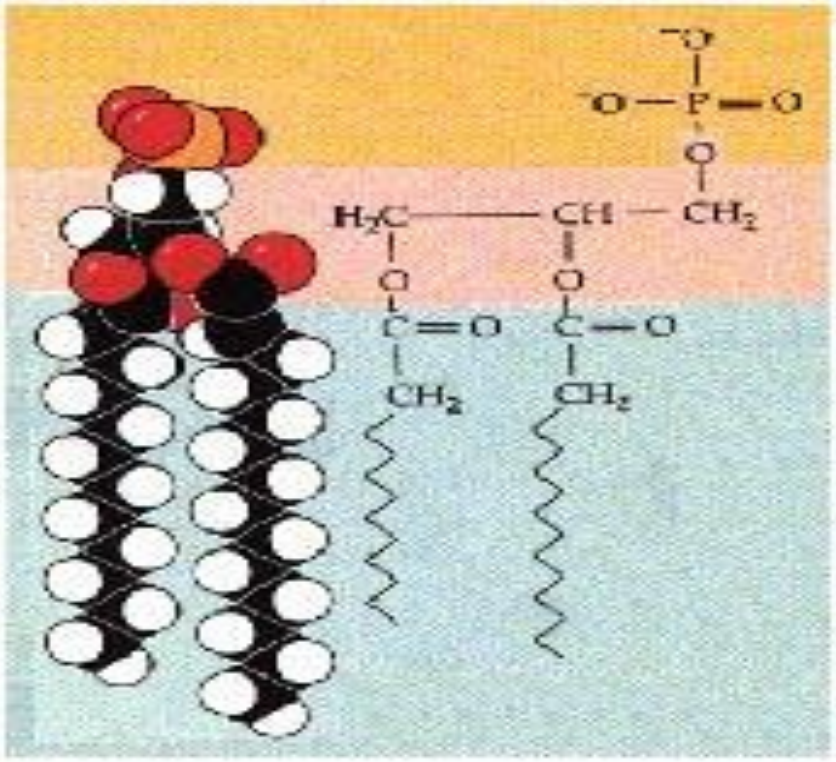

Липиды
Простые
Сложные


arachidic
stearic
palmitic
erucic
oleic
arachidonic
linoleic
linolenic

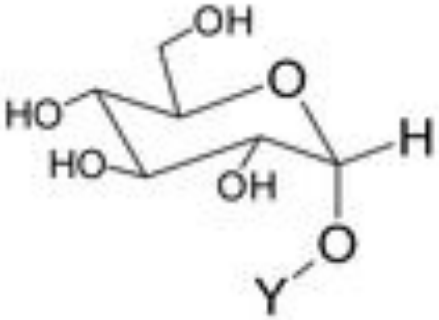


где R, R_1, R_2 – радикалы жирных кислот

фосфолипид

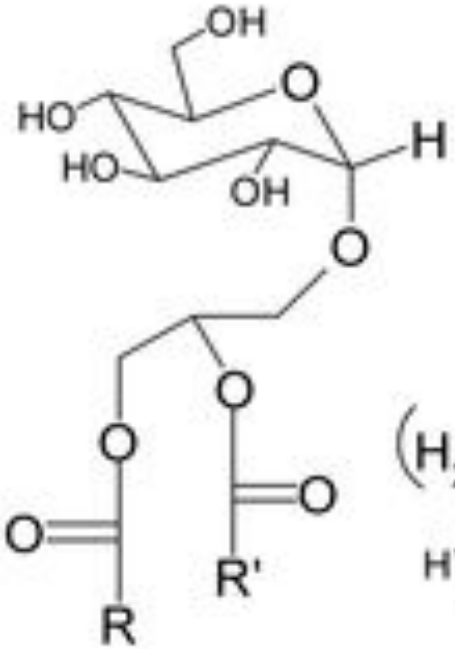


Glycolipids

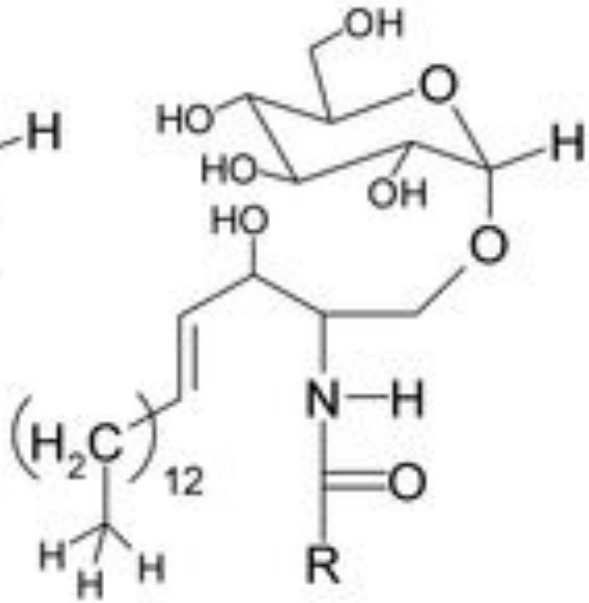


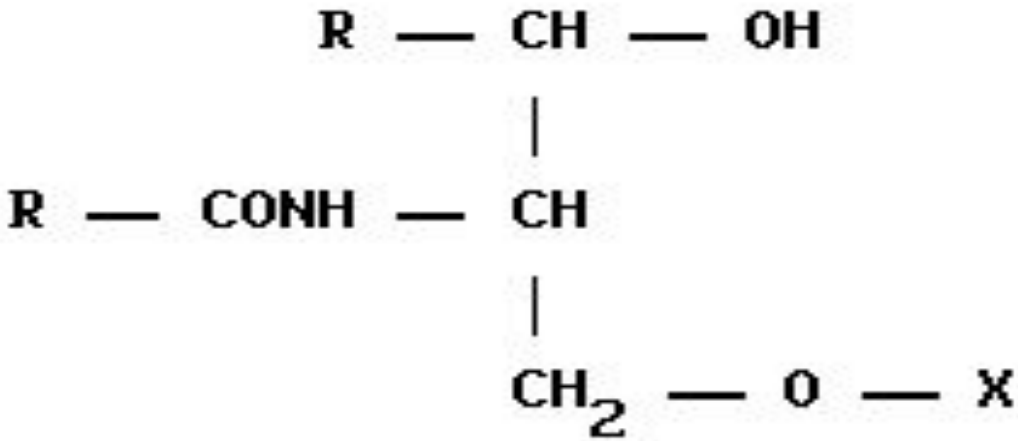
Y = Lipid

Glycero-
Glycolipids

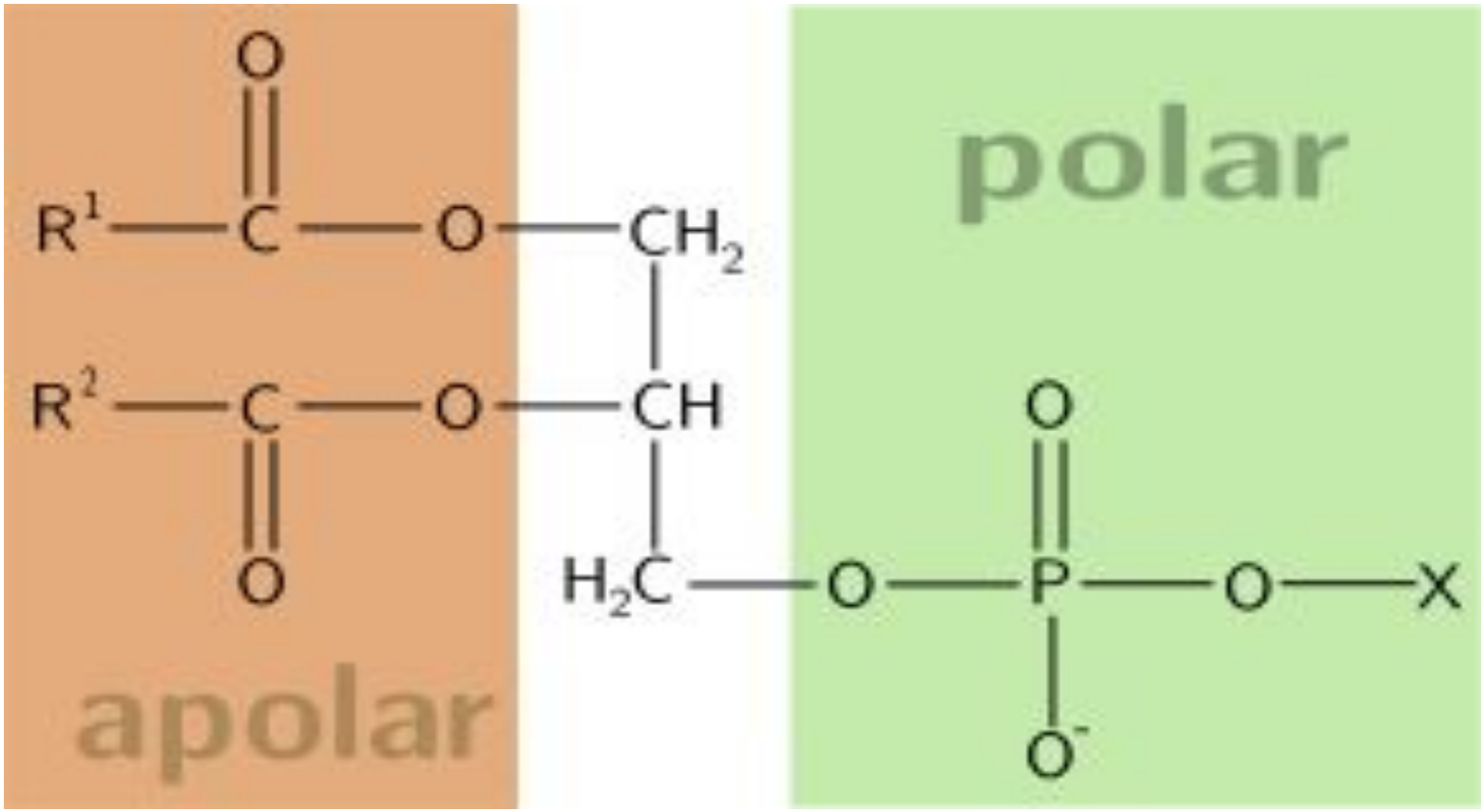


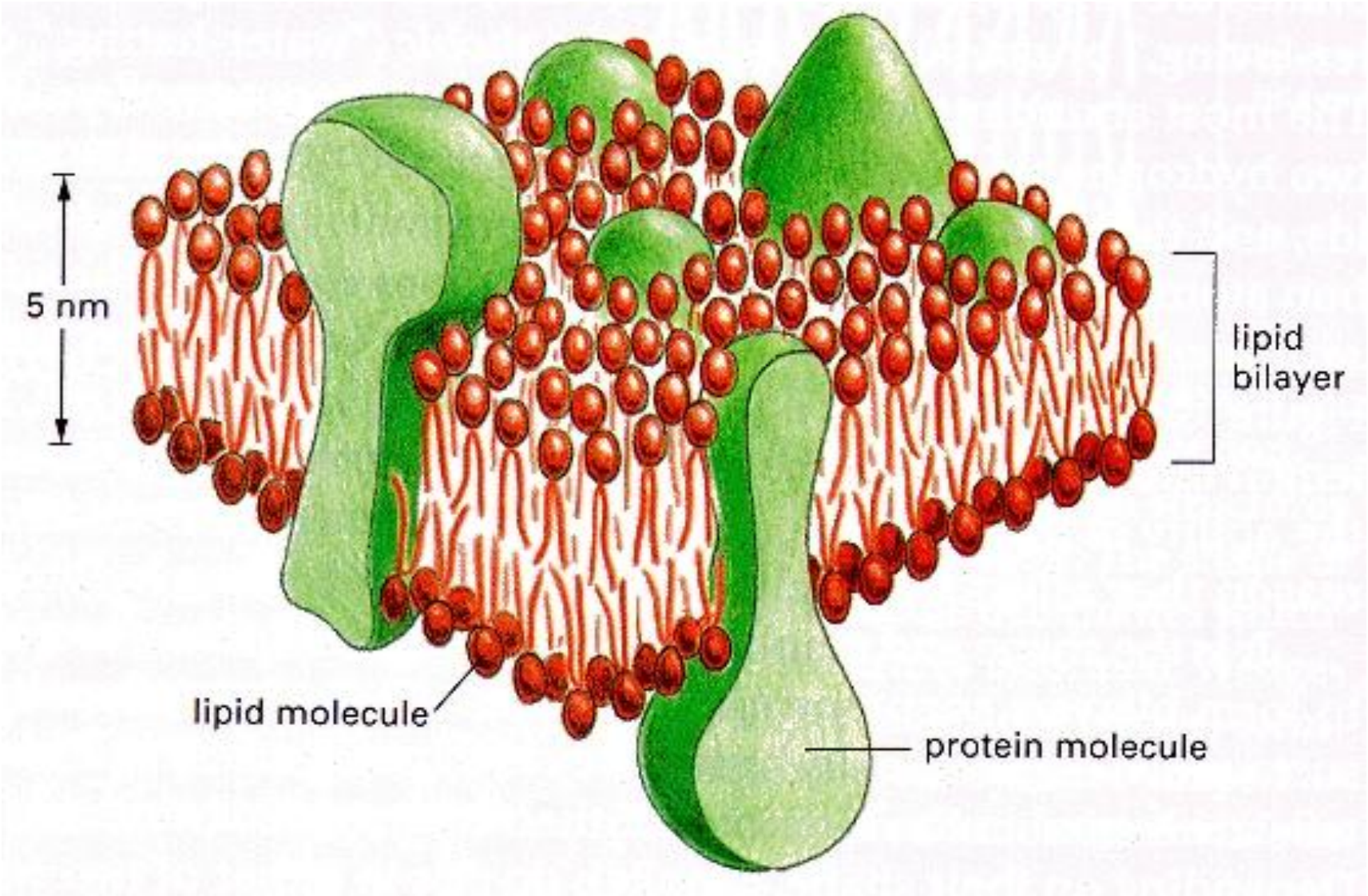
Sphingo-
Glycolipids

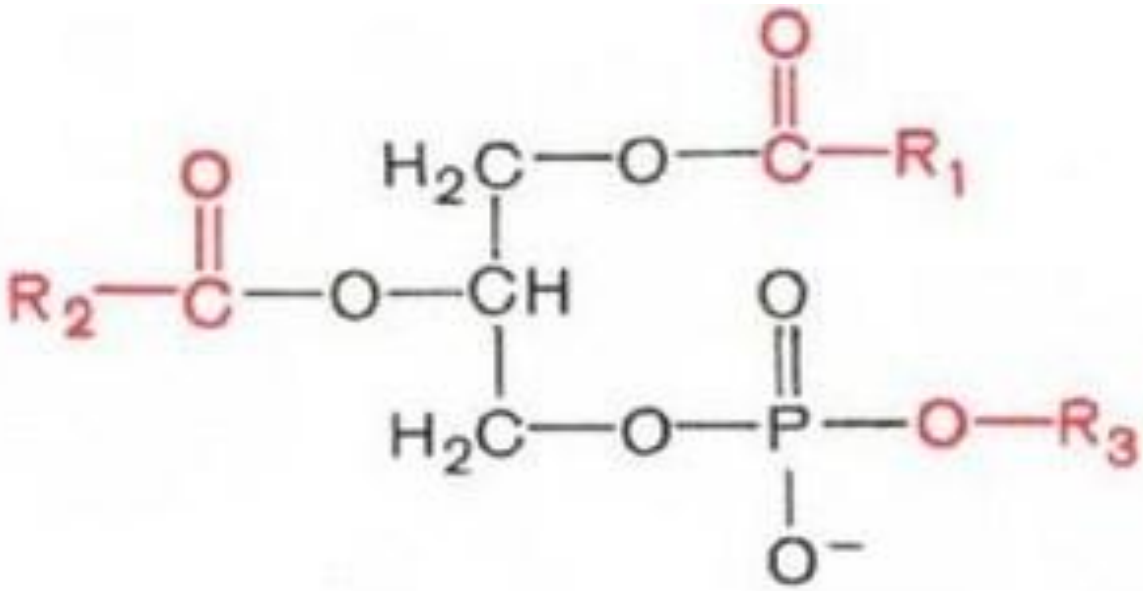




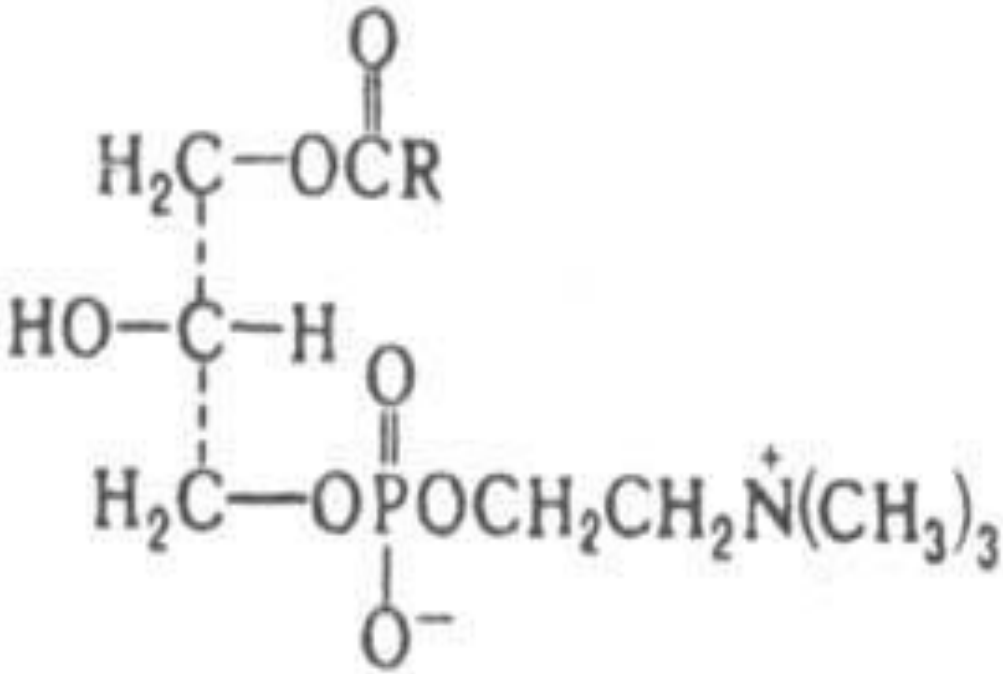
X – моно- или олигосахарид

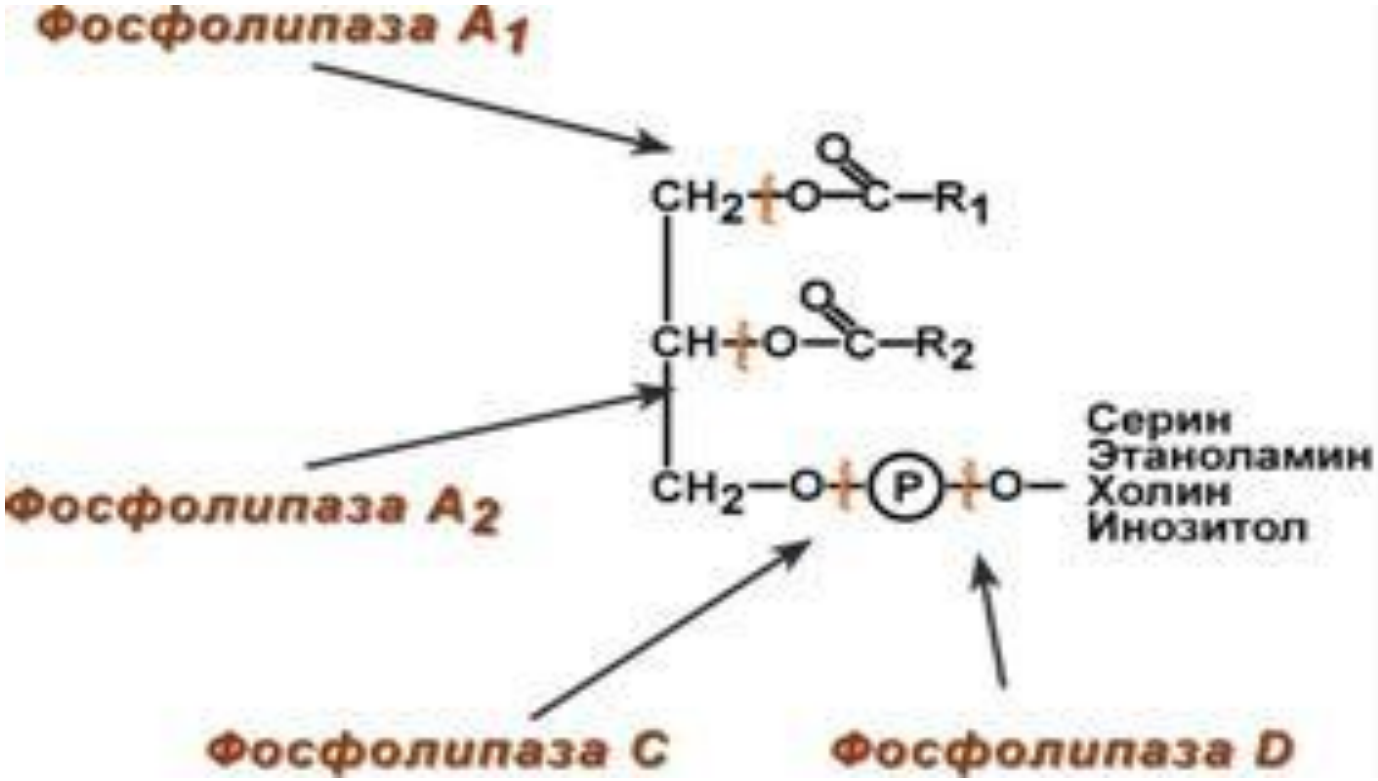

polar
apolar
R1
R2
C
O
CH2
CH
H2C
P
X
O-

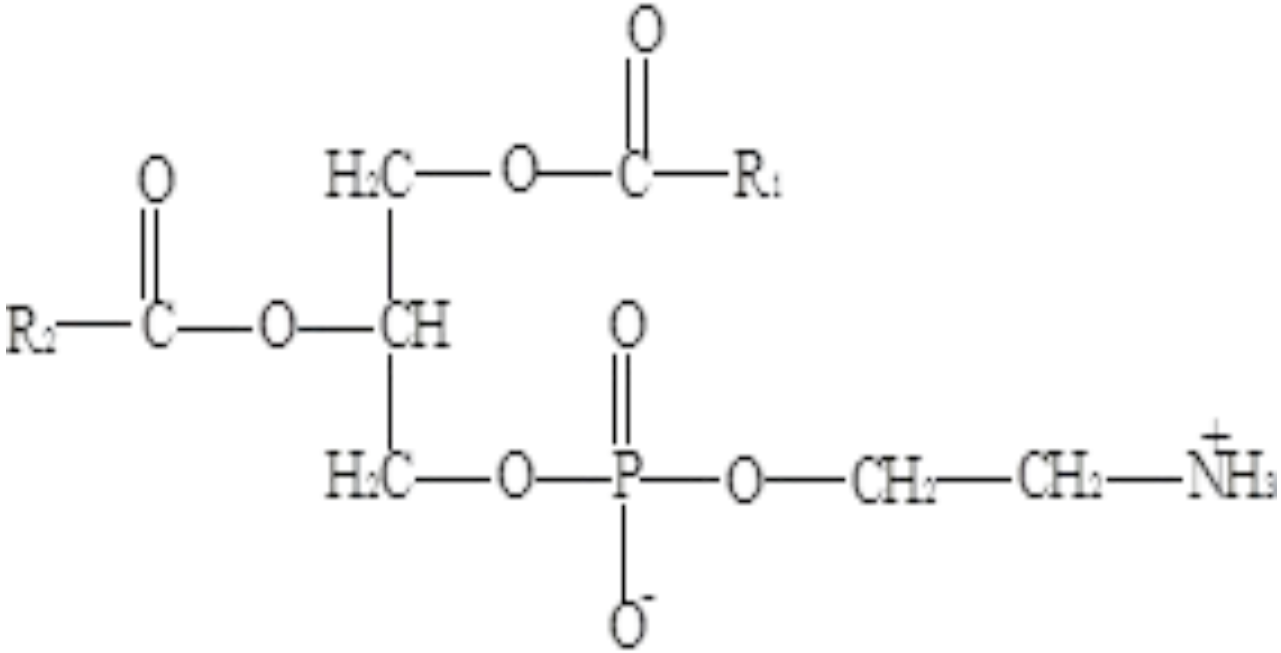

5 nm
lipid bilayer
lipid molecule
protein molecule

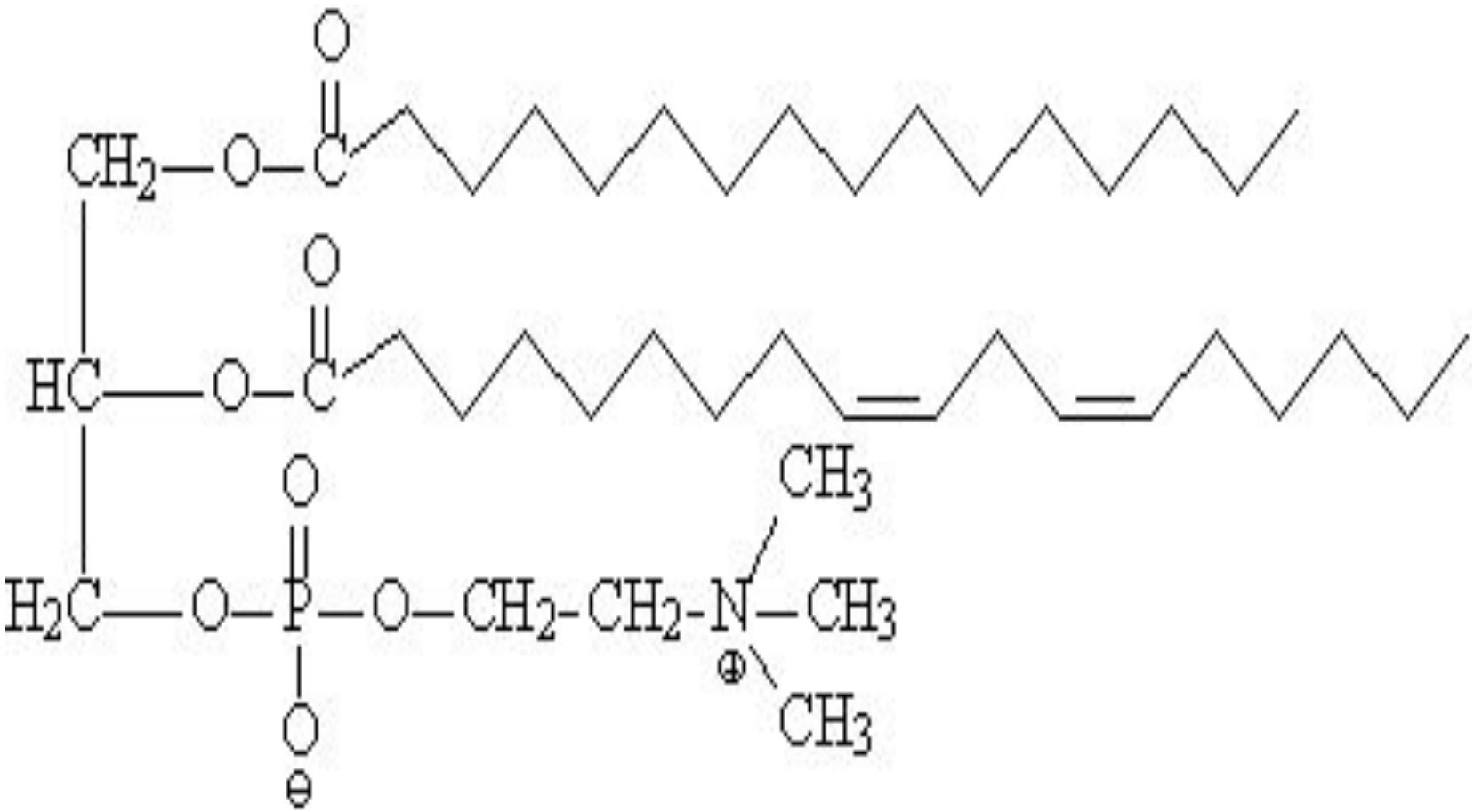


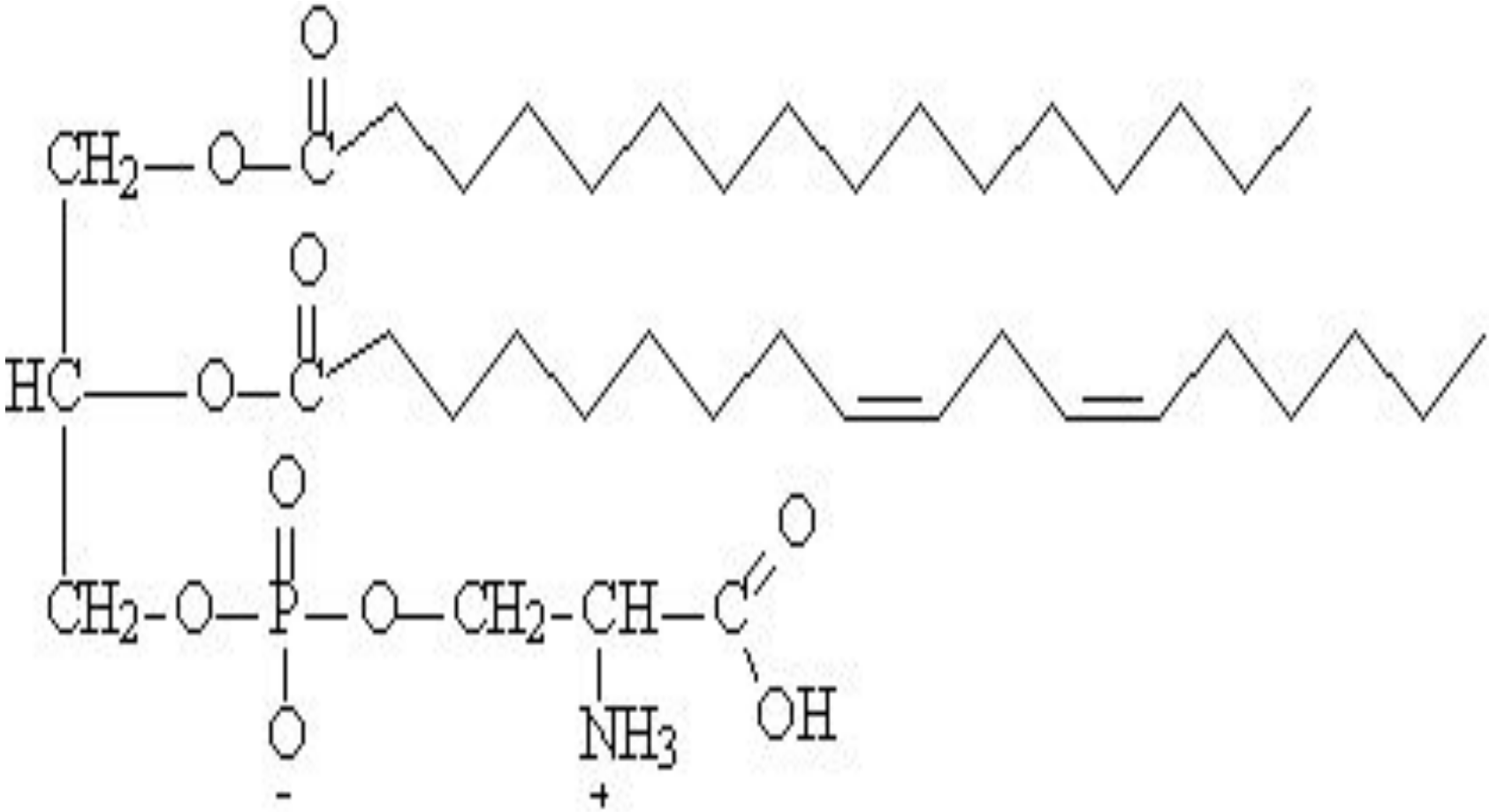
Глицерофосфолипид

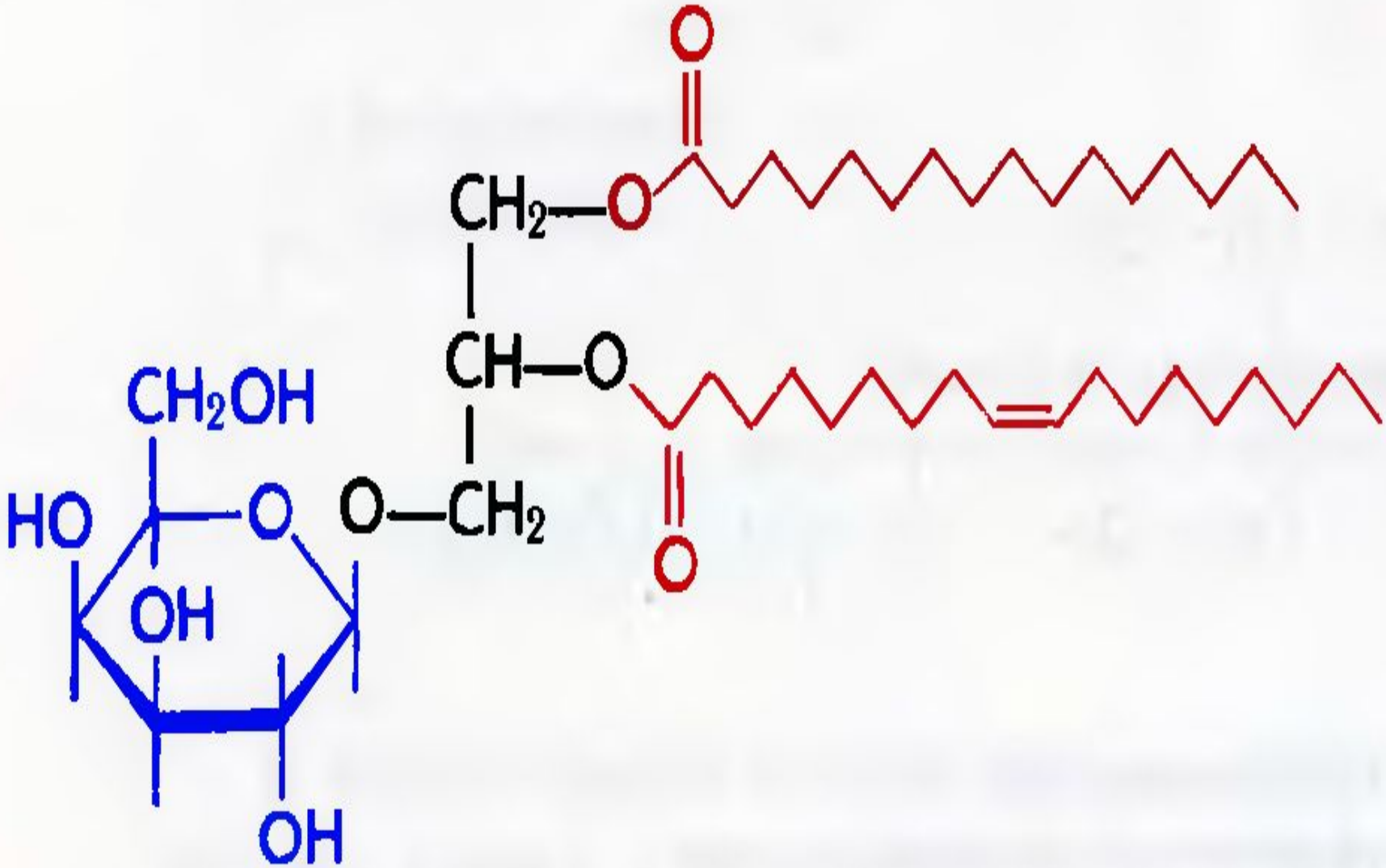

O
H2C—OCR
HO—C—H
O
H2C—OPOCH2CH2N(CH3)3
O−

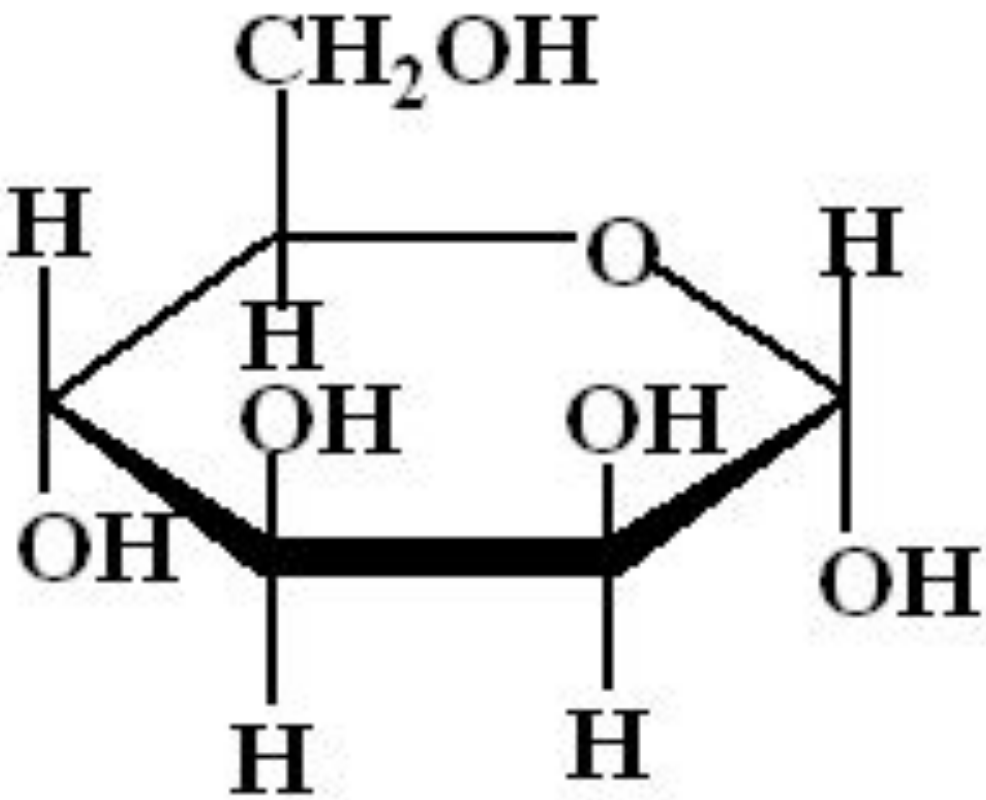

Фосфолипаза A1
CH2—O—C—R1
O
CH—O—C—R2
O
Фосфолипаза A2
CH2—O—P—O—
Серин
Этаноламин
Холин
Инозитол
Фосфолипаза C
Фосфолипаза D

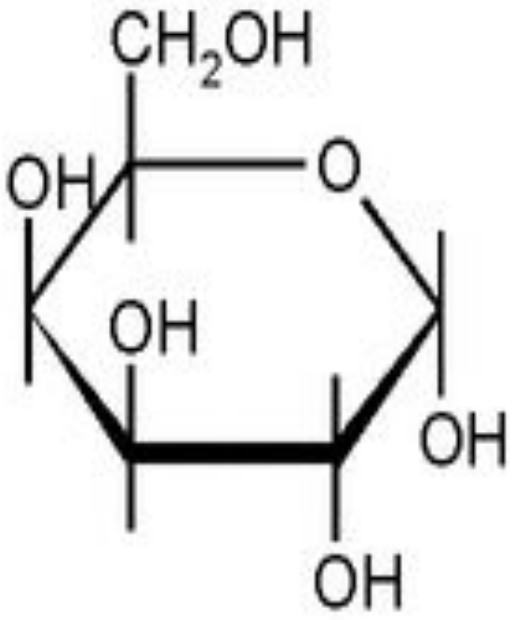

O
H2C
O
C
R1
O
R2
C
O
CH
O
H2C
O
P
O
CH2
CH2
NH3
O-

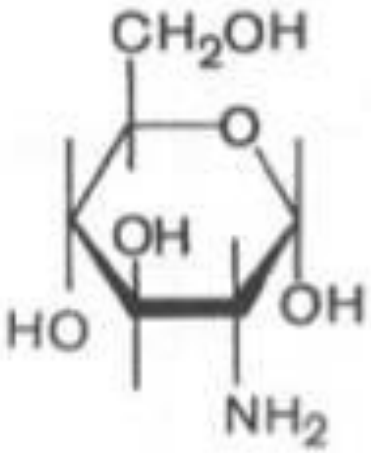

O
CH2—O—C
O
HC—O—C
CH3
O
H2C—O—P—O—CH2-CH2-N—CH3
CH3
O


O
CH2—O—C
O
HC—O—C
O
O
CH2-O—P—O—CH2-CH—C
O
OH
O
NH3
-
+

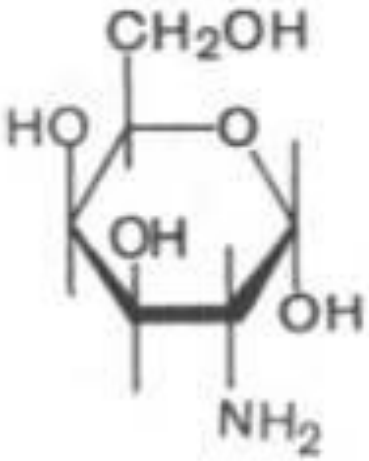

O
CH2—O
CH—O
O—CH2
O
CH2OH
HO
O
OH
OH


CH2OH
H
O
H
H
OH
OH
OH
OH
H
H

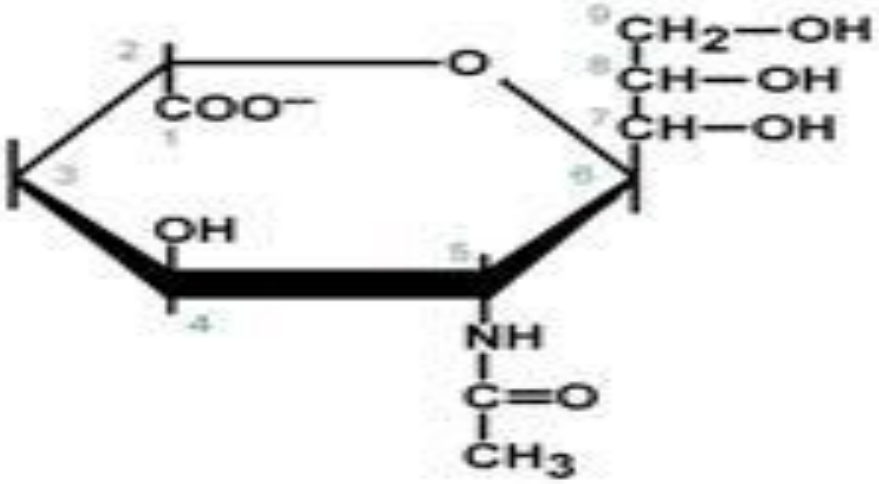

CH2OH
OH
O
OH
OH
OH



D-глюкозамин



D-галактозамин



N-ацетилнейраминовая кислота

Plant Cell Chloroplast Structure

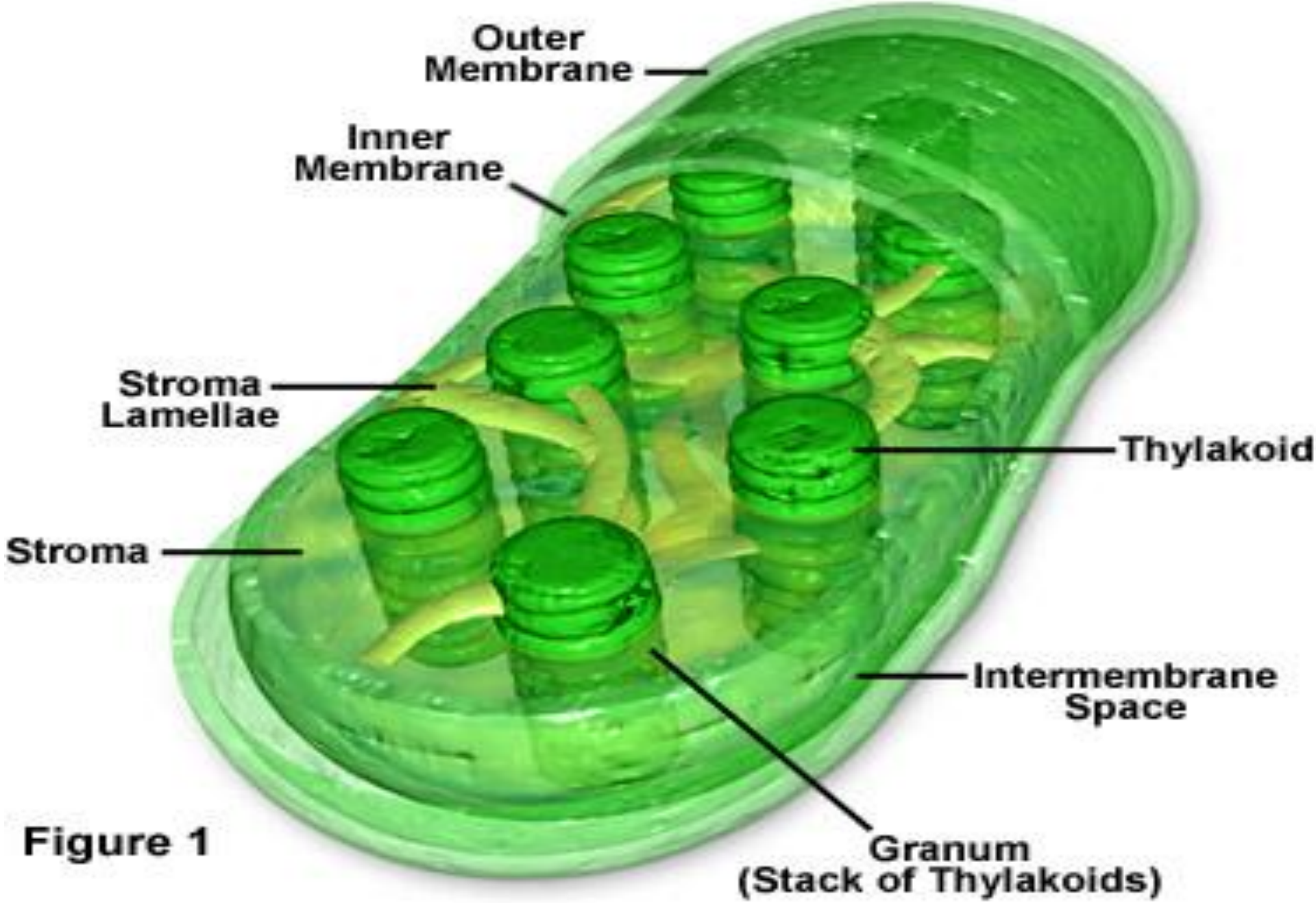
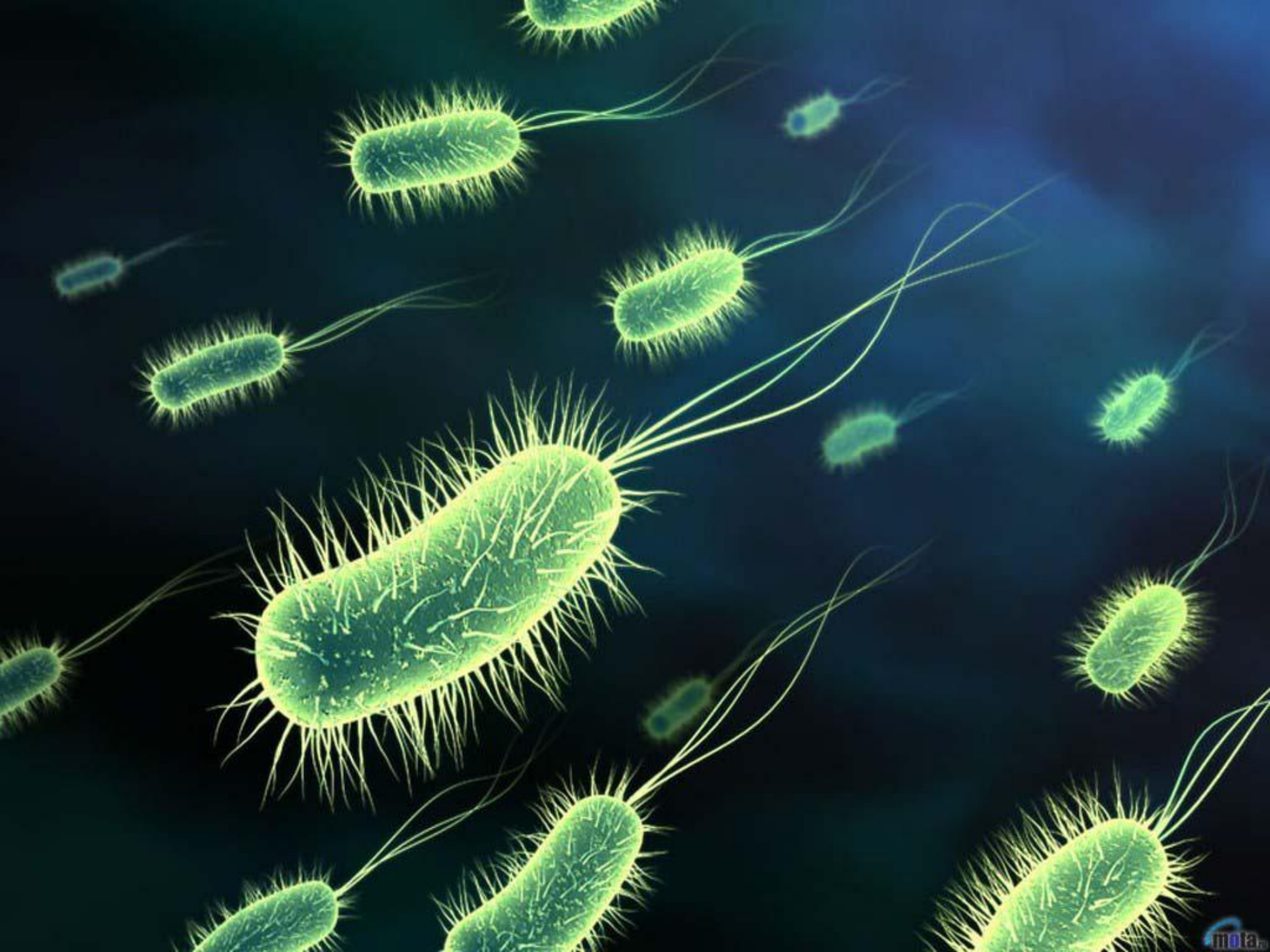



Figure 1