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12.

seminář LC

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L I P I D Y

Klasifikace lipidů :

1/ TUKY a OLEJE

acylglyceroly

monoacylglycerol
diacylglycerol
triacylglycerol

2/ GLYCEROLIPIDY

- glycerofosfolipidy

fosfatidylcholin (lecithin)

-“- ethanolamin (kefalin)
-“- serin
-“- inositol

- plasmalogeny
- kardiolipin

3/ SFINGOLIPIDY

- sfingofosfolipidy sfingomyelin
- glykolipidy cerebrosidy
globosidy
gangliosidy

4/ ISOPRENOIDY

- terpeny vit. A (retinoidy)
skvalen,
dolichol
ubichinon
.....
- steroidy cholesterol, ...
žlučové kyseliny
pohlavní hormony (androgeny,
estrogeny, gestageny)
kortikoidy (gluko- a mineralo-)
vit. D, kalcidiol, kalcitriol

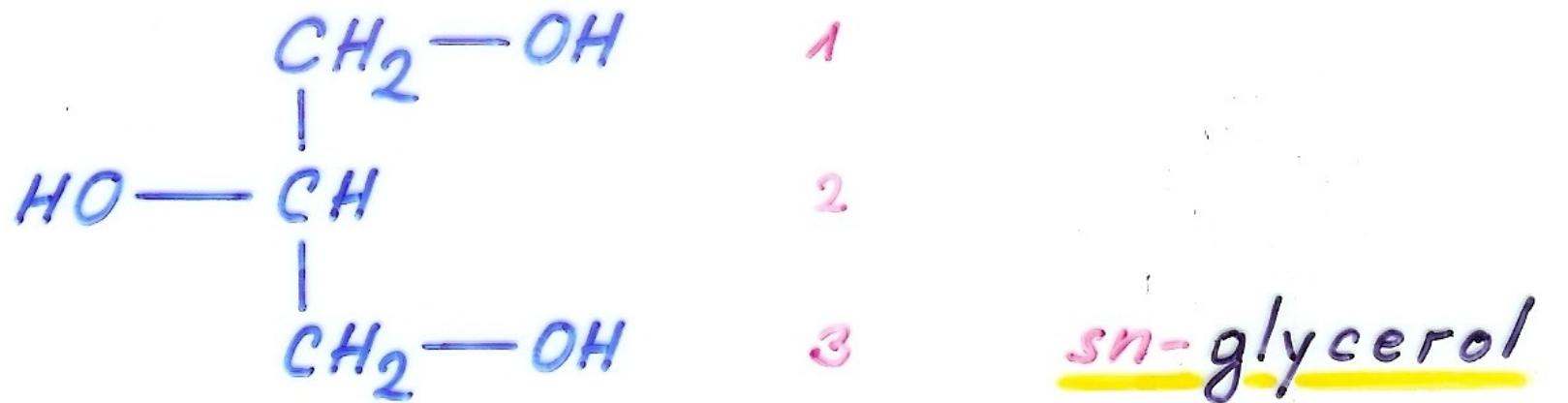
5/ V TUCÍCH ROZPUSTNÉ VITAMINY

A, D, E, K (A + D již uvedeny)

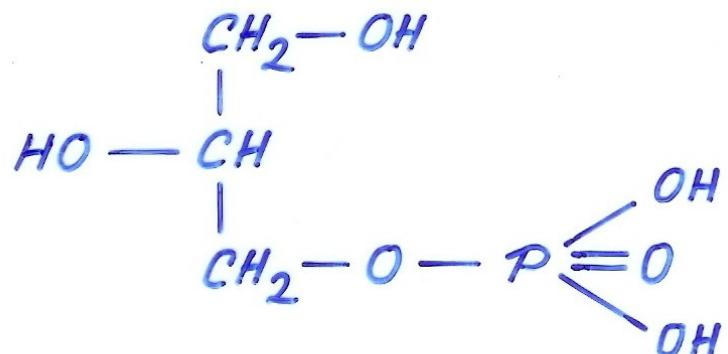
6/ DERIVÁTY MASTNÝCH KYSELIN

- ikosanoidy prostaglandiny
 prostacykliny
 thromboxany
 leukotrieny

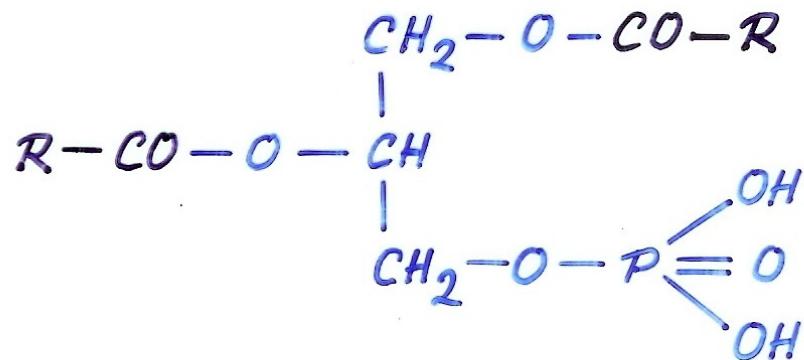
.....



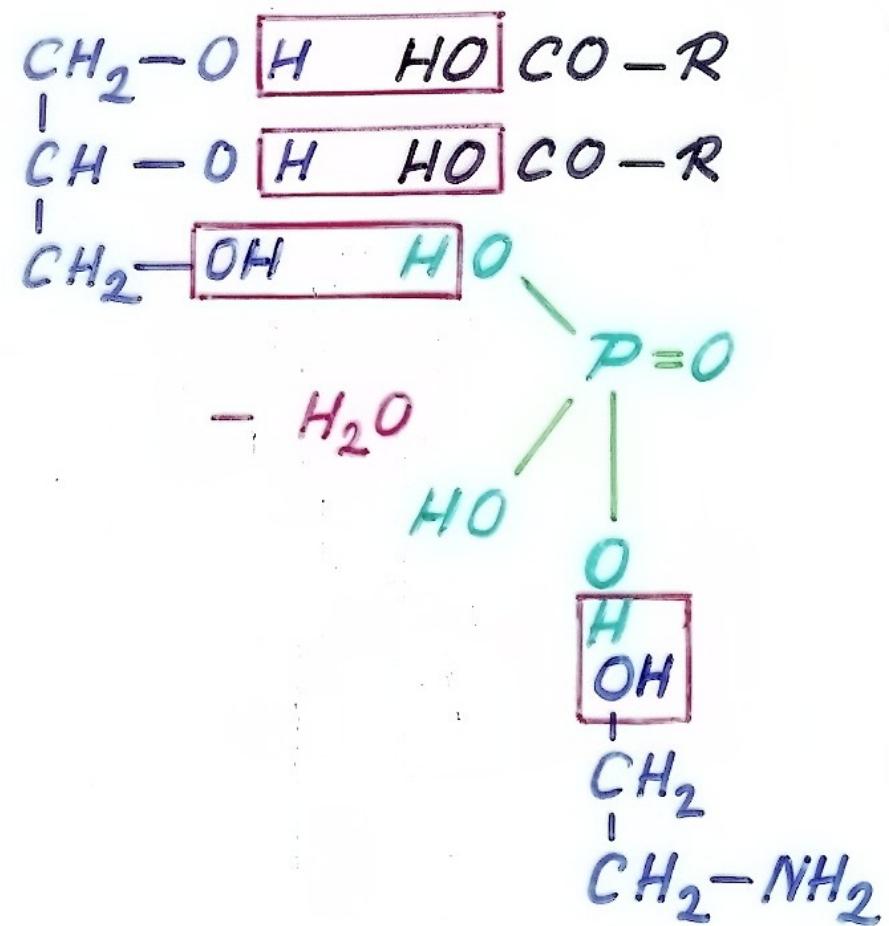
sn = stereospecific notation

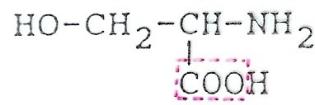


sn-3-glycero-
phosphate

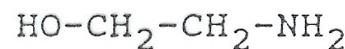
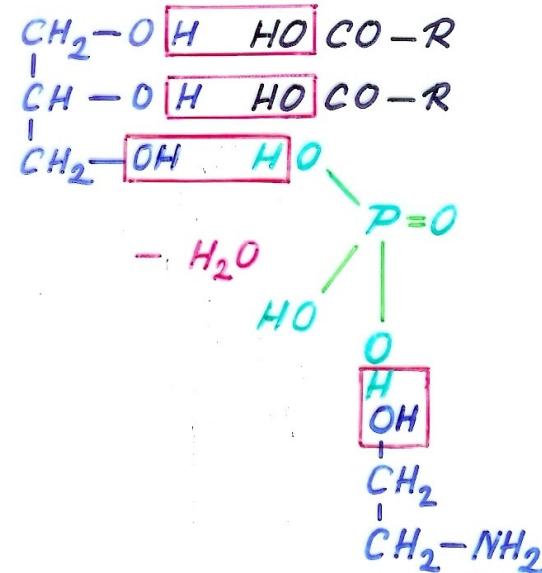


phosphatidic
acid
fosfatidová kys.

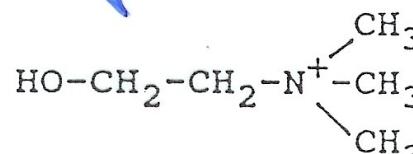




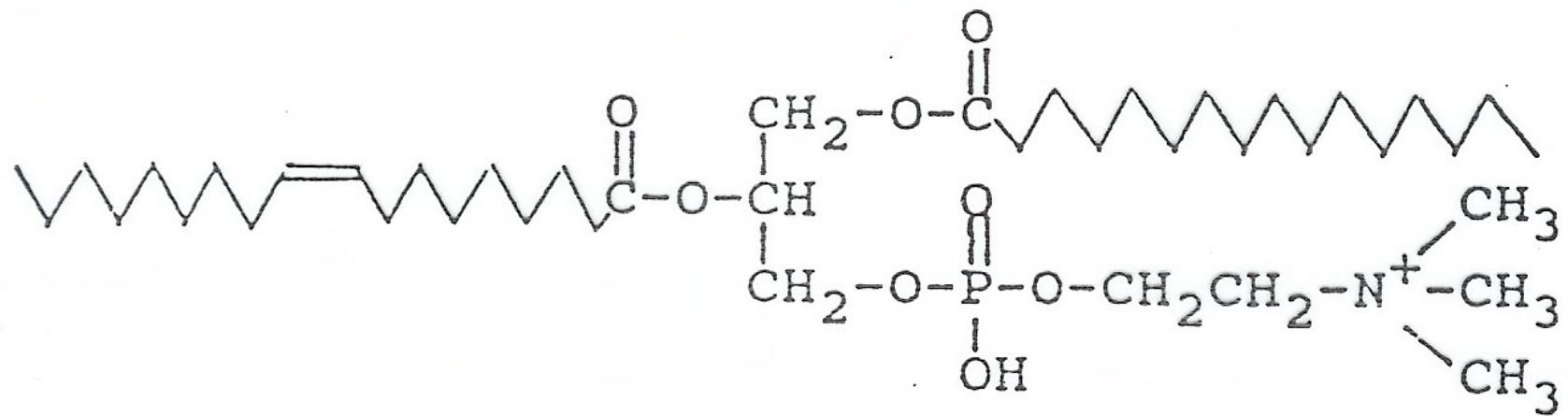
serine



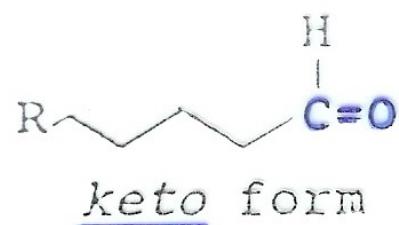
ethanolamine



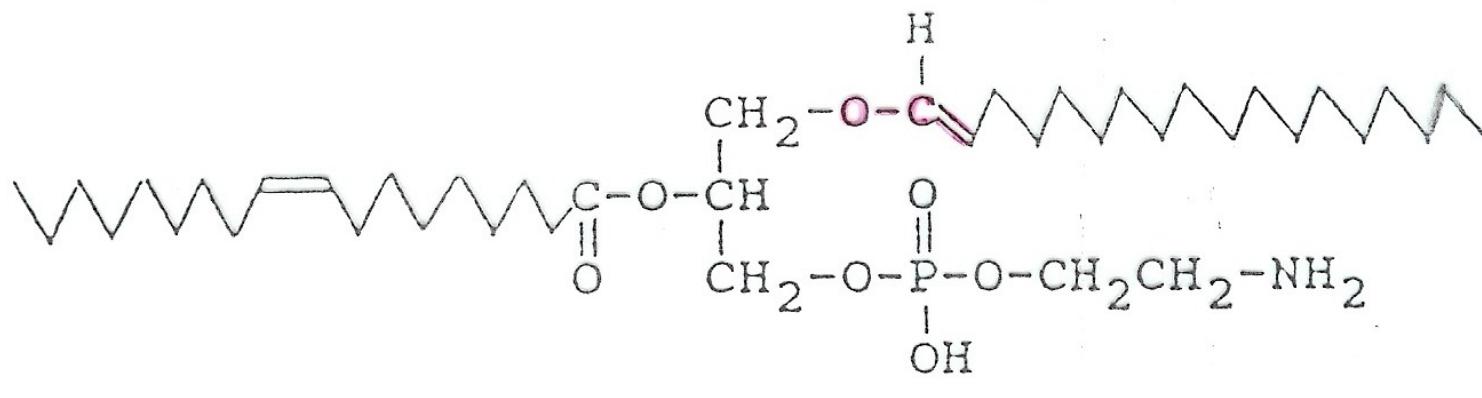
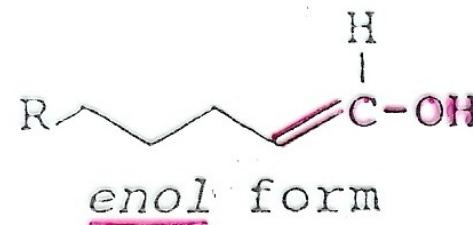
choline



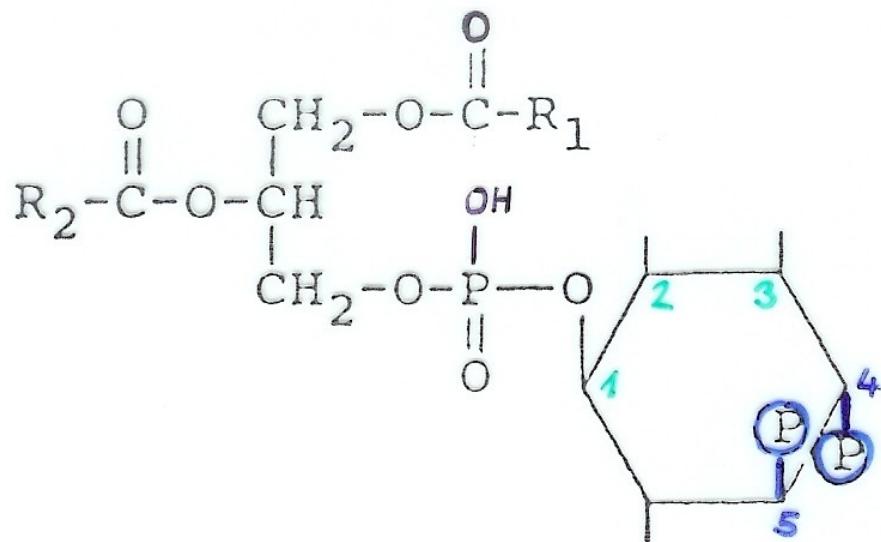
phosphatidylcholine (lecithin)



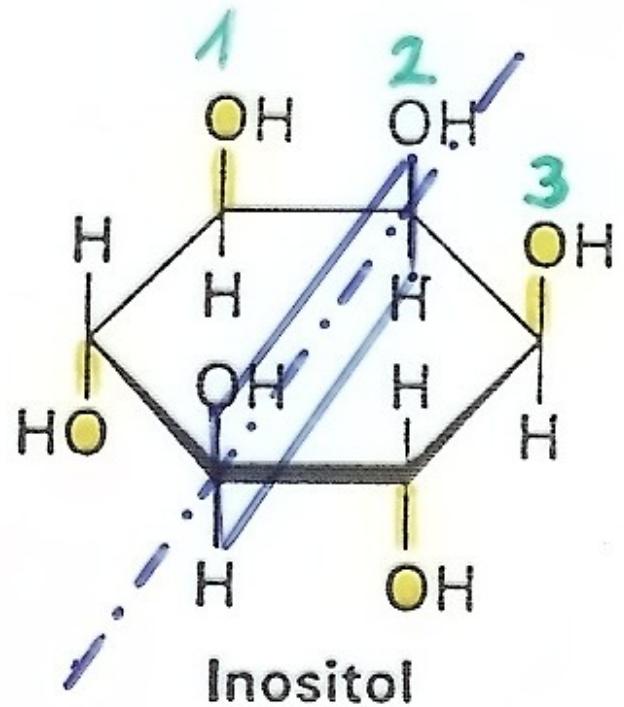
aldehyde

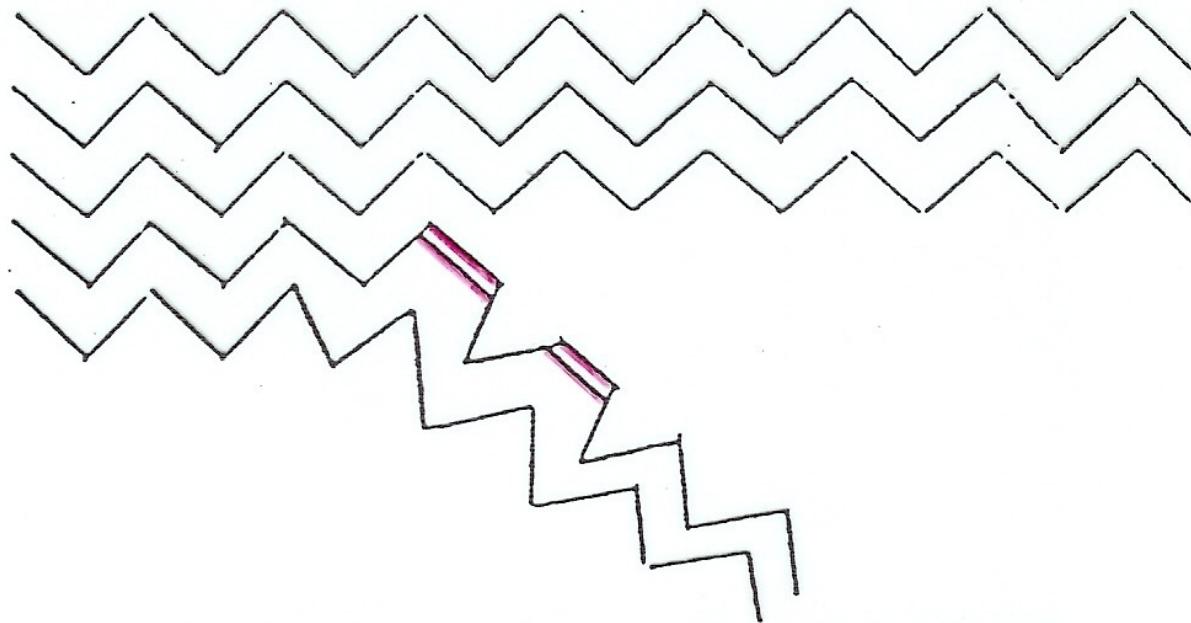


plasmalogen

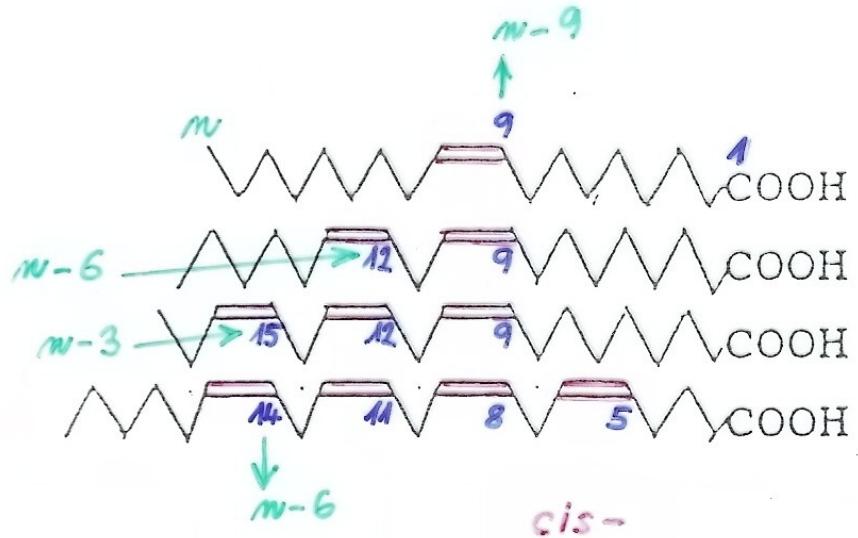


phosphatidylinositol-4,5,-bisphosphate





impaired molecular packing



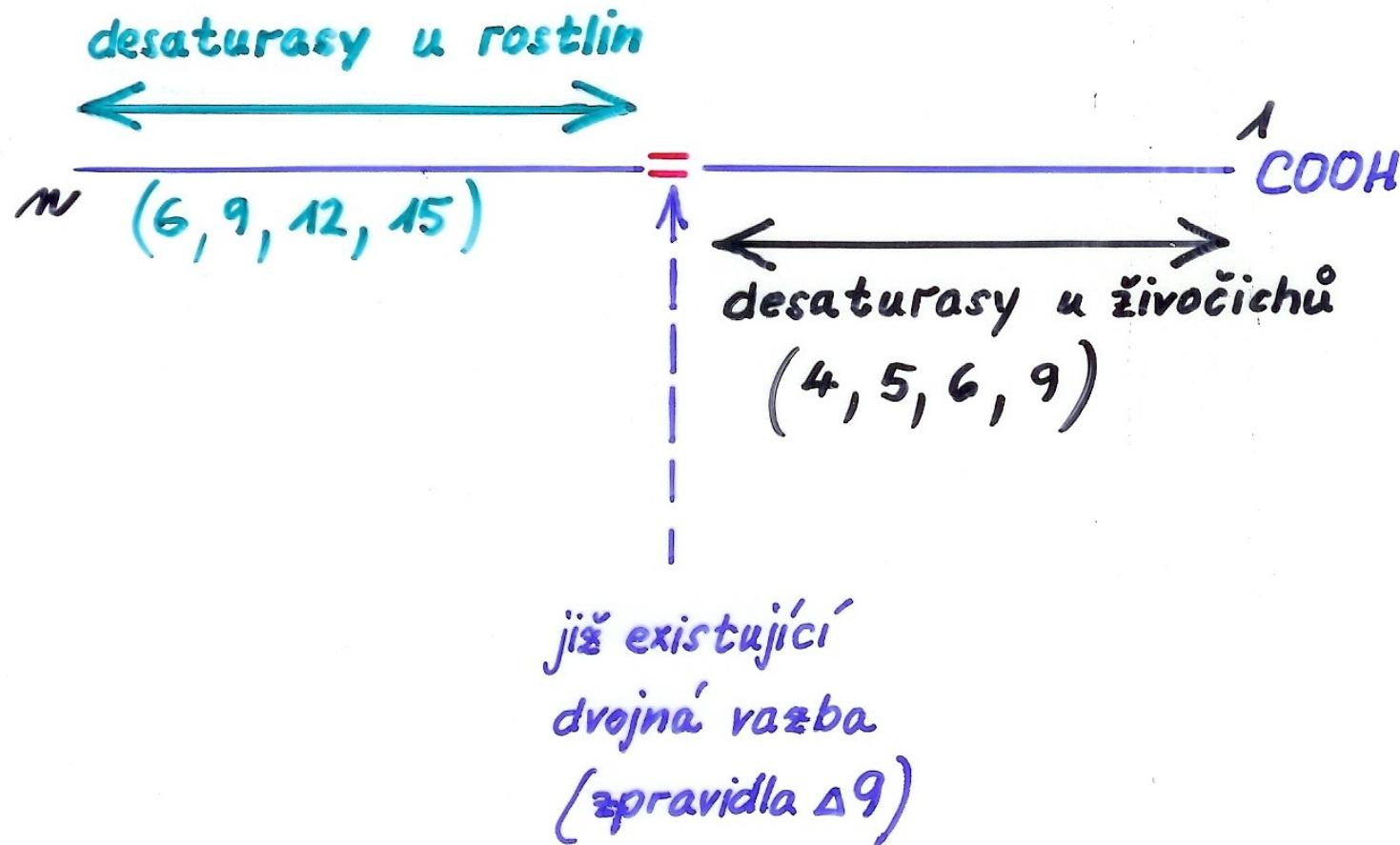
oleic acid ($\omega 9$, C18:1)

linoleic acid

linolenic acid

arachidonic acid

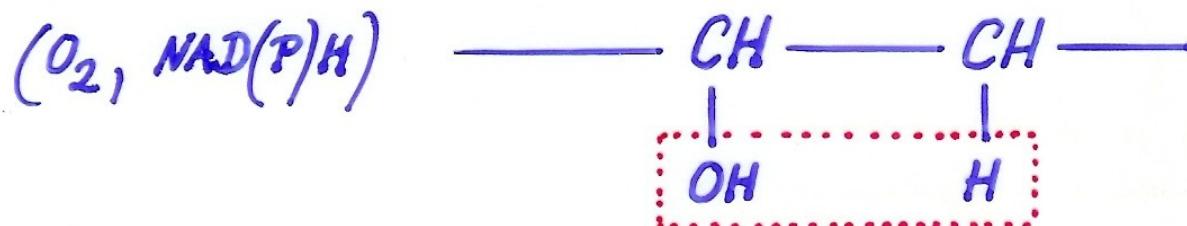
Desaturace mastných kyselin:



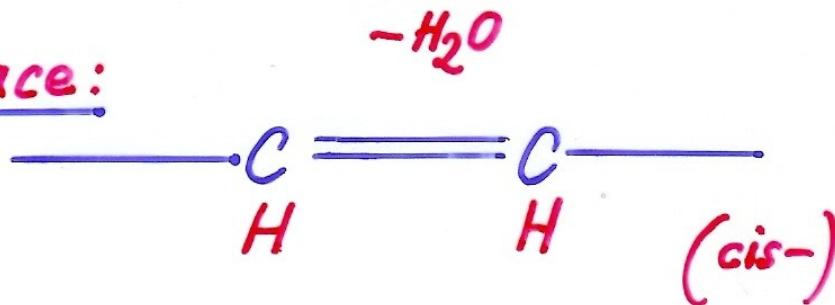
Vlastní desaturace:



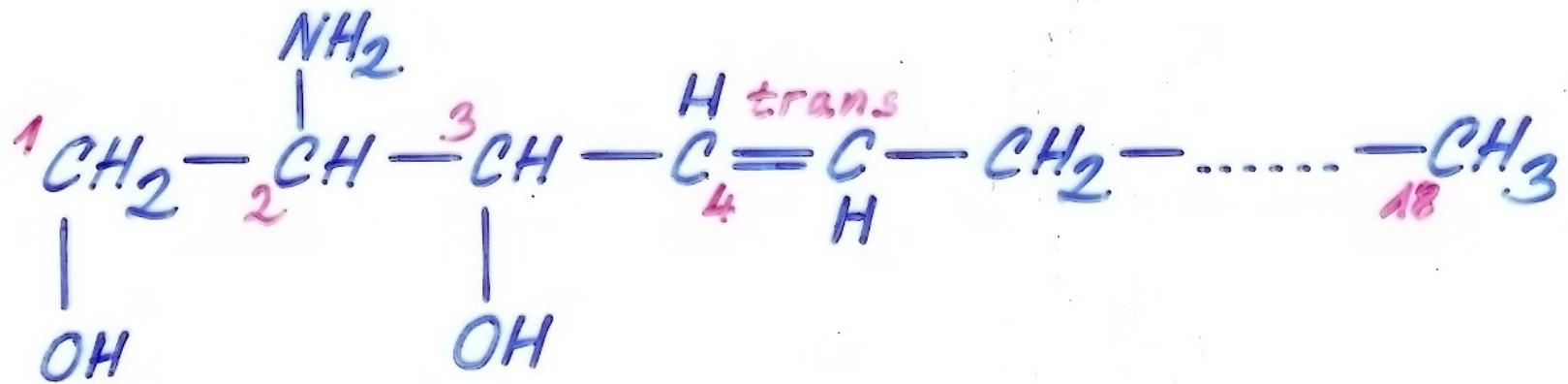
① hydroxylace:



② dehydratace:

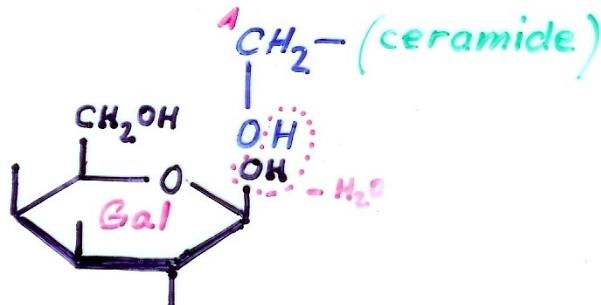
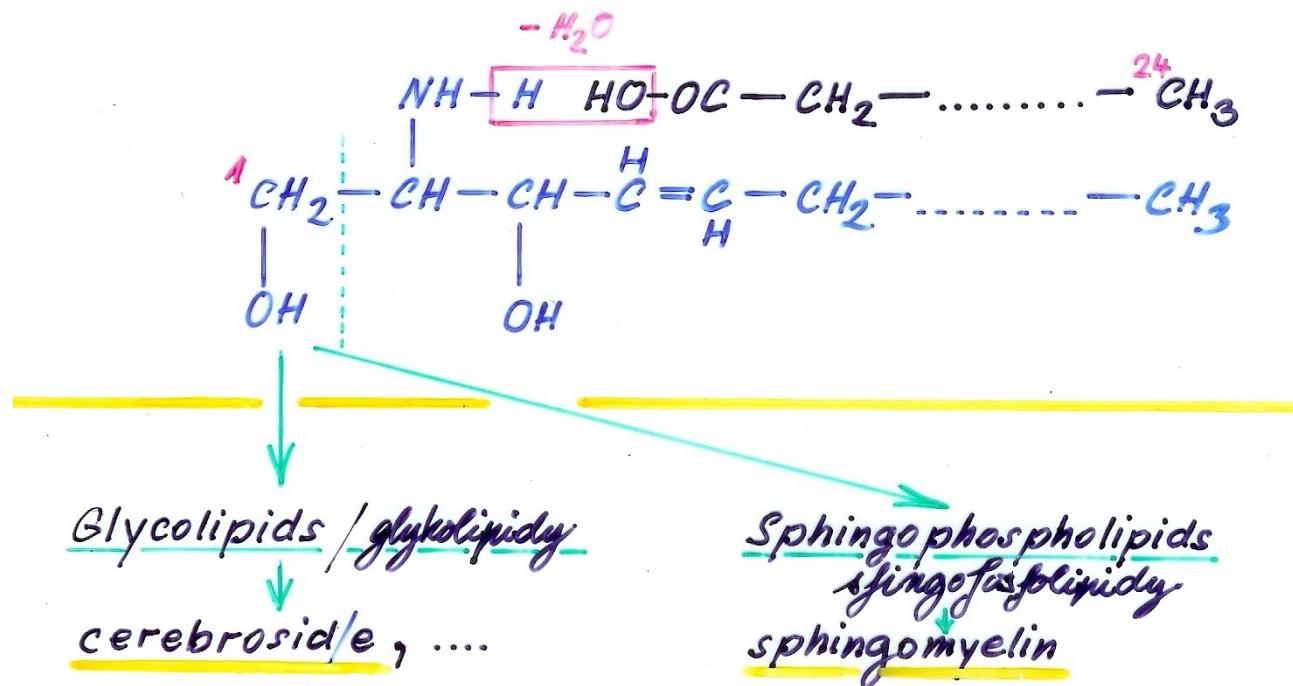


Sfingosin / sphingosine :

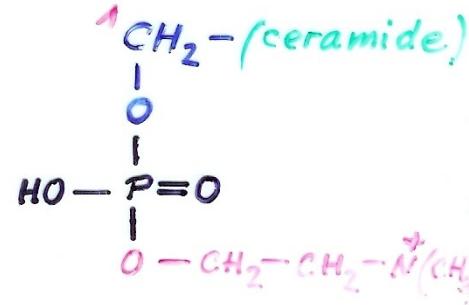


Ceramide/e

= *N*-acyl-sphingosine

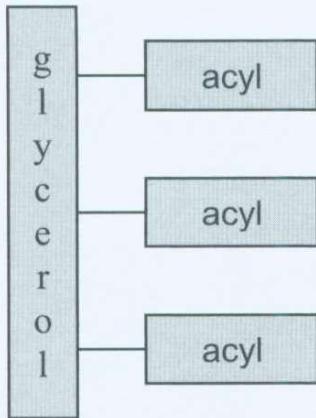


ceramide - glycoside

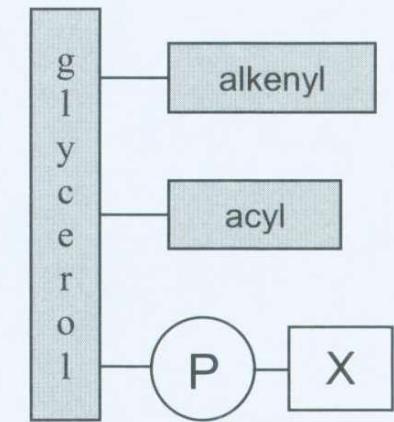
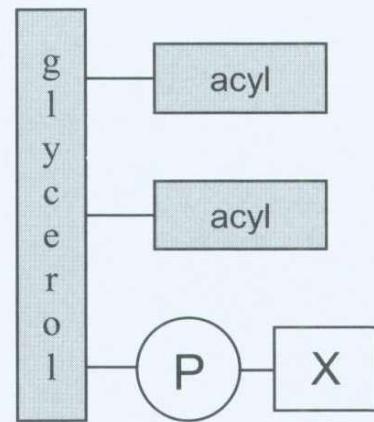


ceramide - P - choline

Triacylglyceroly



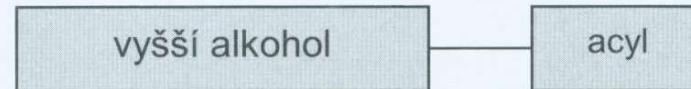
Glycerofosfolipidy



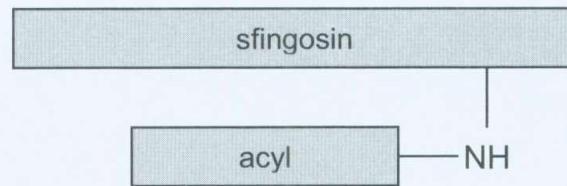
Fosfatidylcholiny apod.

Plasmalogeny

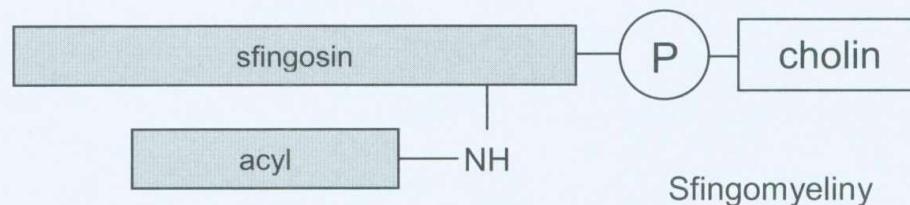
Vosky



Ceramidy

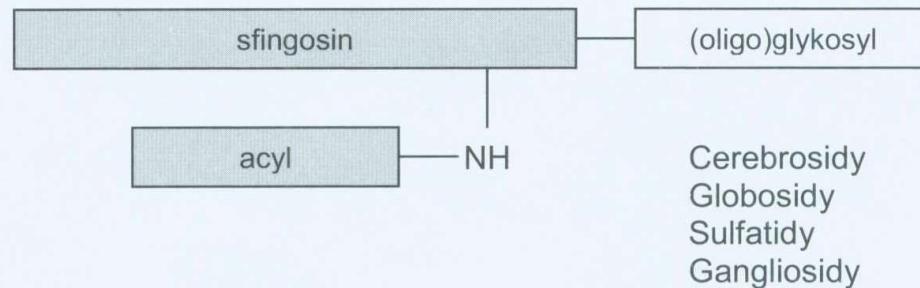


Sfingofosfolipidy



Sfingomyeliny

Sfingoglykolipidy



Cerebrosidy
Globosidy
Sulfatidy
Gangliosidy

