

METABOLISM OF

PHOSPHOLIPID.

→ VARIETY OF FUNCTIONS:-

↓
MEMBRANE FORMATION

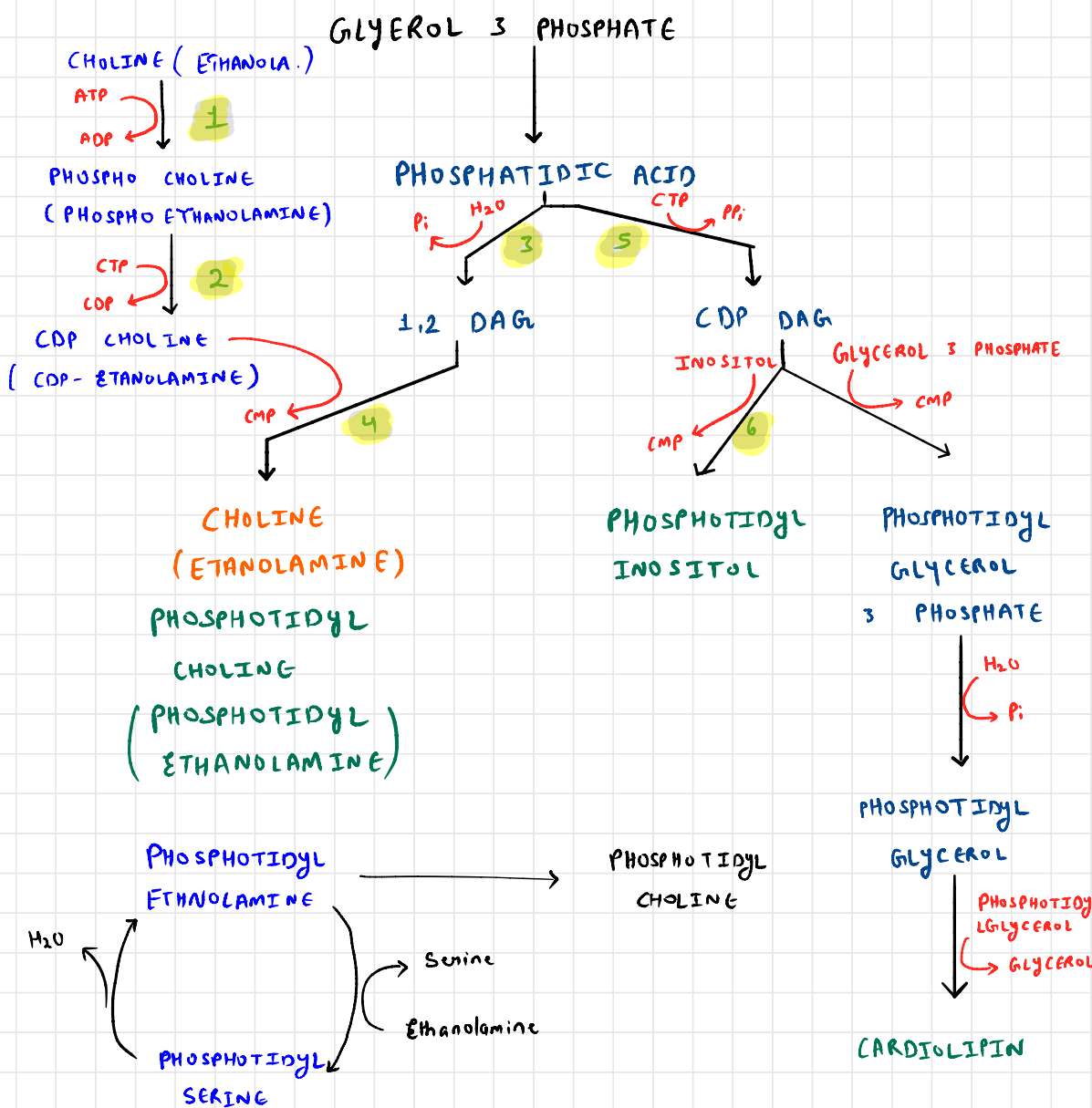
↓
BLOOD CLOTTING

↓
TRANSFER
OF ARACHIDONIC
ACID FOR SYNTHESIS
OF PROSTAGLANDIN.

→ SYNTHESIZED BY:-

PHOSPHATIDIC ACID & 1,2 DAG
INTERMEDIATES
↓
TRIACYLGLYCEROL

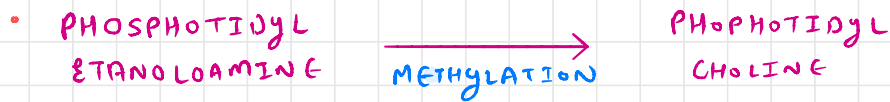
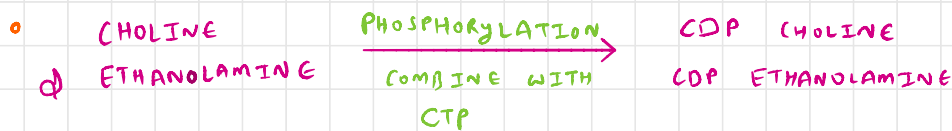
→ LOCATION:- ENDOPLASMIC RETICULUM.



- 1) Choline kinase.
- 2) Phosphocholine cytidyltransferase.
- 3) Phosphatidate phosphohydrolase.

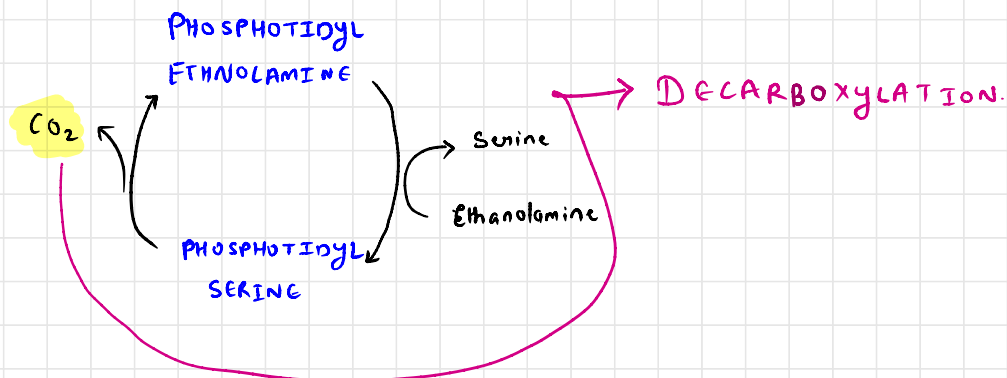
- 4) Phosphocholine Diacylglycerol Transferase.
- 5) CTP phosphatidate cytidyl - Transferase.
- 6) CDP DAG Inositol Transferase.

1) FORMATION OF LECITHIN $\rightarrow$ PHOSPHOTIDYLCHOLINE $\rightarrow$ CEPHALIN :-

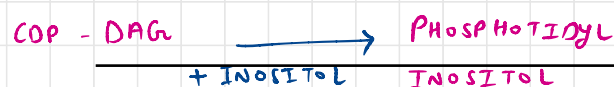


x) CHOLINE & ETHANOLAMINE ARE MAINLY TAKEN FROM PRE-EXISTING PHOSPHOLIPIDS. $\therefore$ CALLED "SALVAGE PATHWAY"

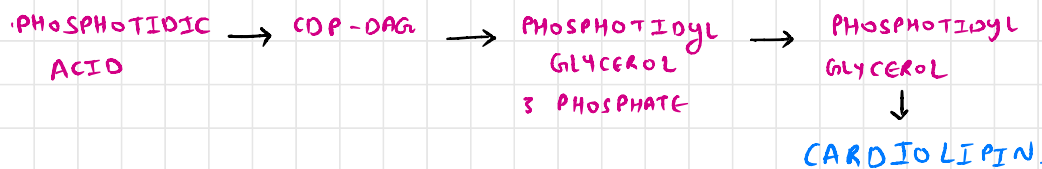
2) SYNTHESIS OF PHOSPHOTIDYLSERINE :-



3) FORMATION OF PHOSPHOTIDYINOSITOL :-

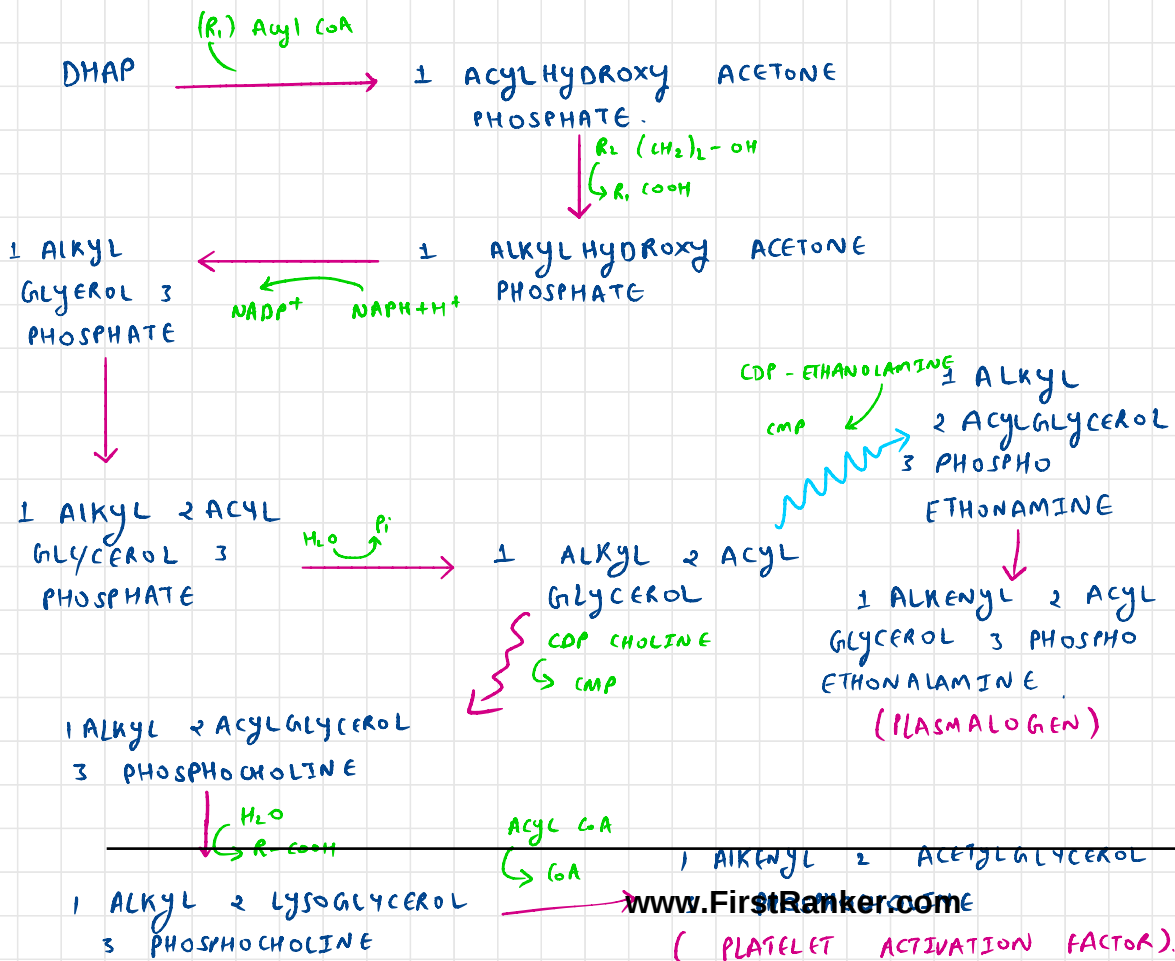


4) SYNTHESIS OF PHOSPHOTIDYL GLYCEROL :- ↓ CARDIOLIPIN

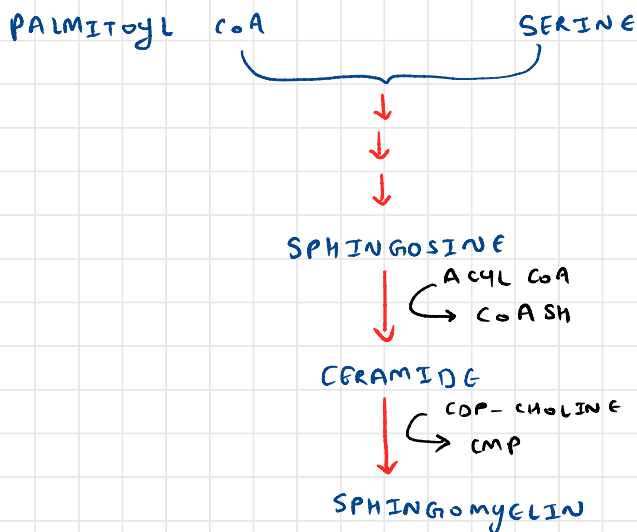


CARDIOLIPIN :- ONLY PHOSPHOLIPID HAVING ANTIGENIC PROPERTIES.

5) FORMATION OF PLASMALOGENS :-

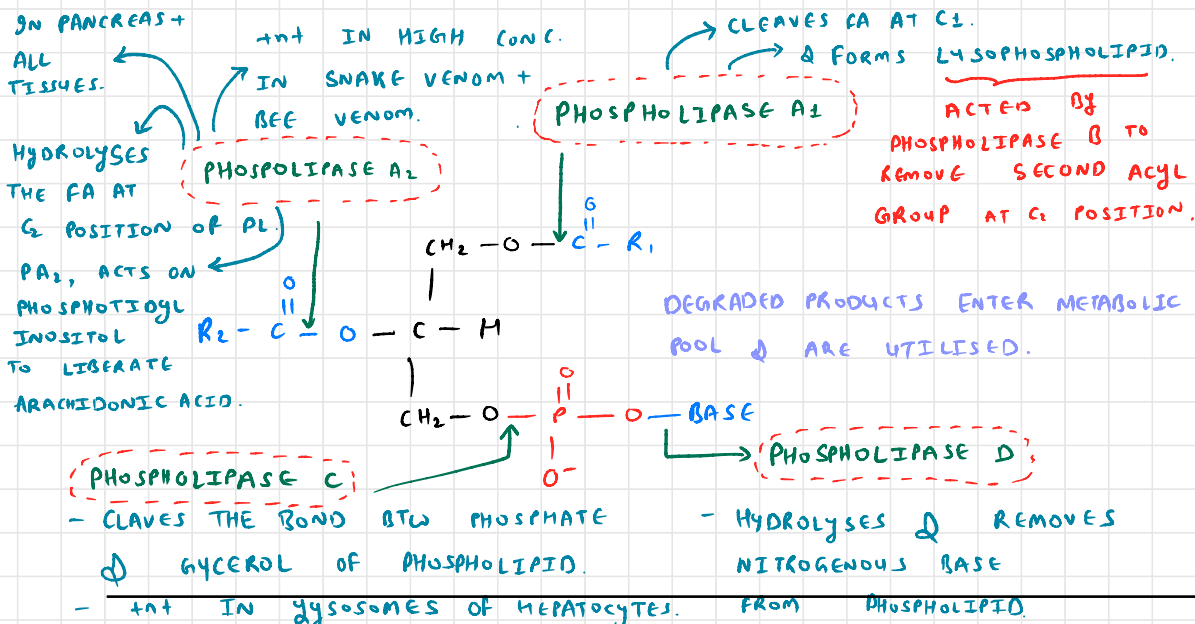


1) SYNTHESIS OF SPHINGOMYELINS :-



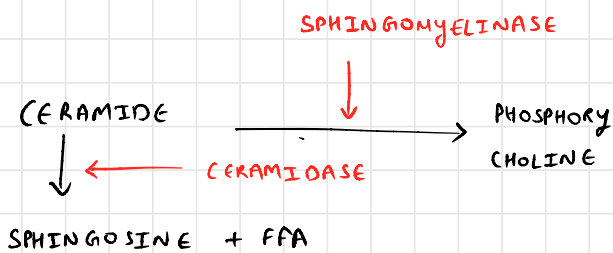
2) DEGRADATION OF PHOSPHOLIPID :-

By PHOSPHOLIPASES WHICH CLEAVES THE BOND.



#) DEGRADATION OF SPHINGOMYELIN :-

→ **SPHINGOMYELINASE** OF **LYSOSOMES** HYDROLYSES SPHINGOMYELINS TO CERAMIDE & PHOSPHORYCHOLINE.
→ CERAMIDE FURTHER DEGRADED TO SPHINGOSINE & FFA.



#) ROLE OF LCAT IN LECITHIN METABOLISM :-

