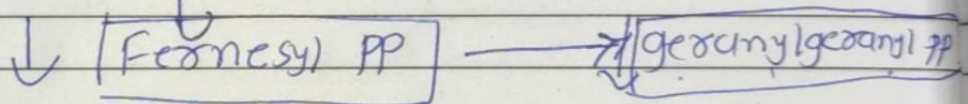
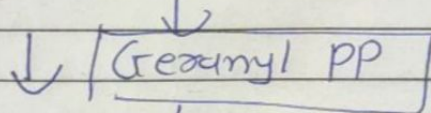
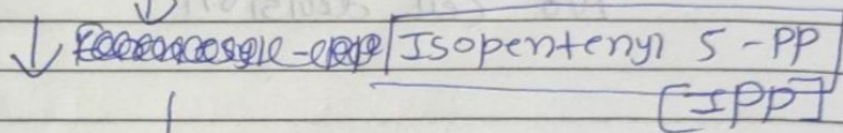
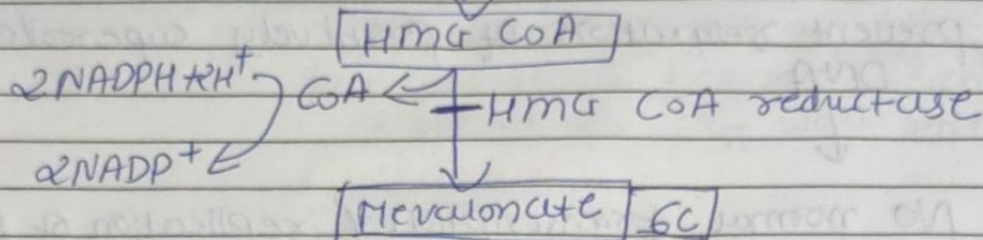


Pharmacology

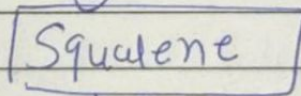
* Statin

→ Inhibit HMG CoA reductase enzyme.

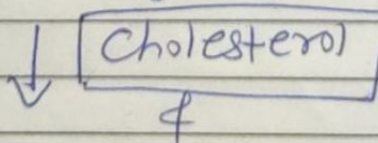
→ Acetyl CoA + Acetoacetyl CoA
↓ HMG CoA Synthase



↓ Heme A
↓ Dolichol
↓ Ubiquinone



↓ protein prenylation
[post translational modification]



Function of prenylation
- localize protein
to cellular membrane

↓ LDL
[↑ LDL uptake]
[↑ synthesis of LDL R]

* Isopentamyl pyrophosphate

↓ make

↓
Isoprenoid

↓
Cholesterol

[steroid isoprenoid]

↓
Nonsteroid isoprenoid

[dolichol & ubiquinone
Heme, [coenzyme-Q]

* Prenylation → covalent attachment of farnesyl to protein is called prenylation

↓
Mechanism for protein anchoring to inner plasma membrane

* S/E

* Dolichol^o - Abnormal protein glycosylation
→ myopathy

→ S/E → Muscle pain → CoQ-ETC & ^{Sugar} regulation
→ ↑ risk of DM → ↓ prenylation
→ ↑ liver enzymes
→ Muscle damage → ↓ prenylation

→ ↓ Dolichol → ↓ glycosylation of protein
→ ↓ functional protein