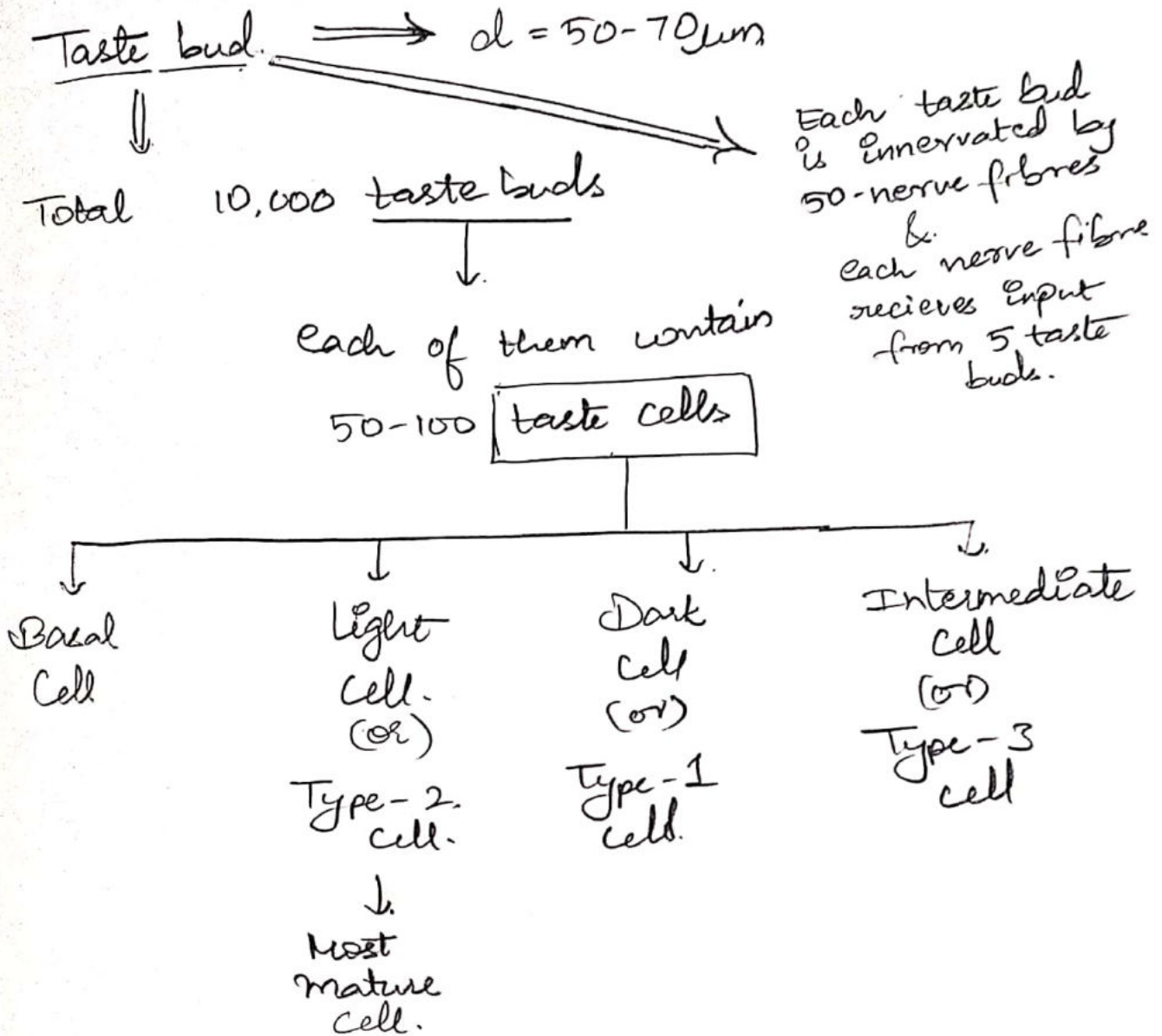


TASTE (Ganong)



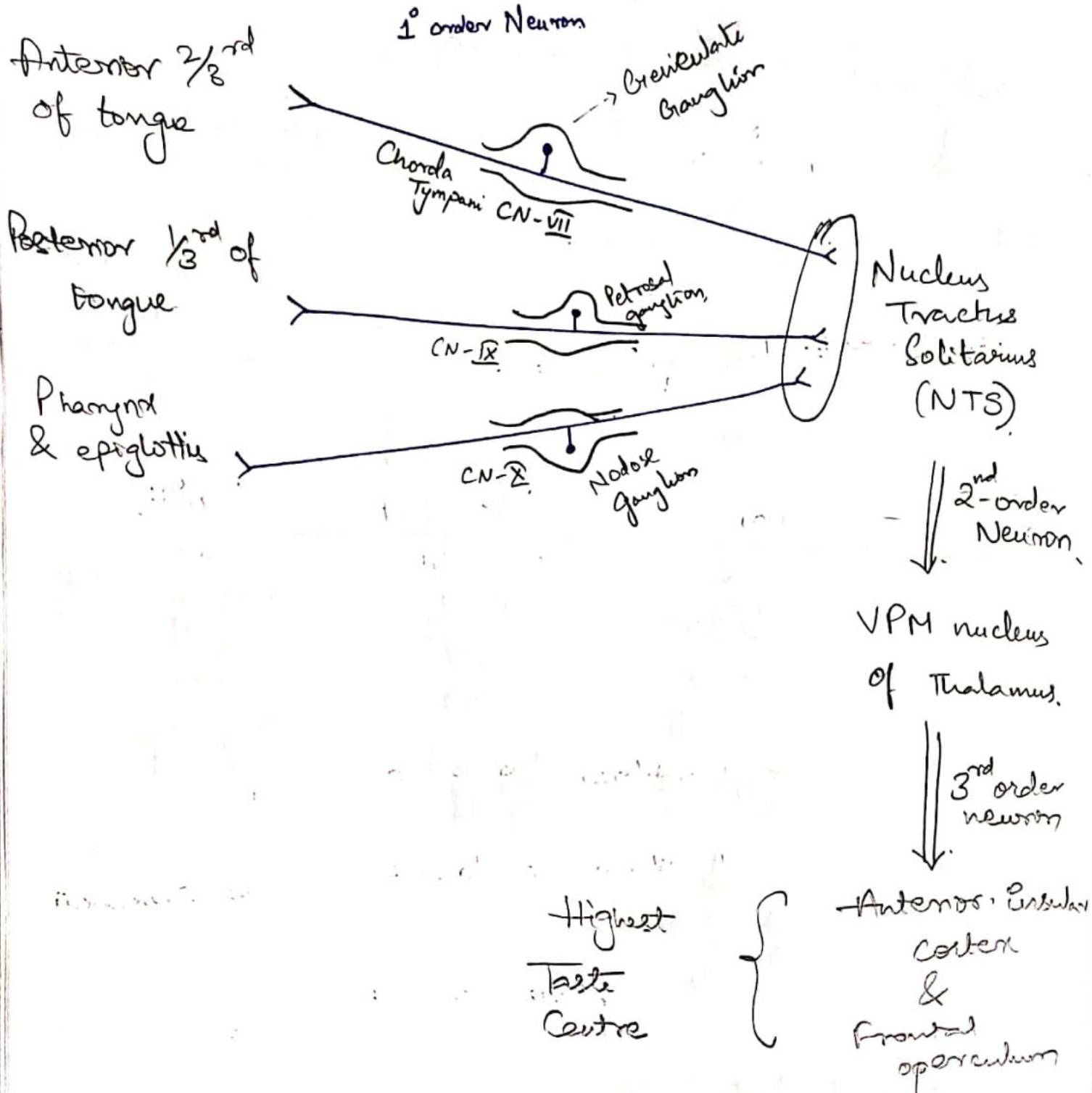
Location of taste buds

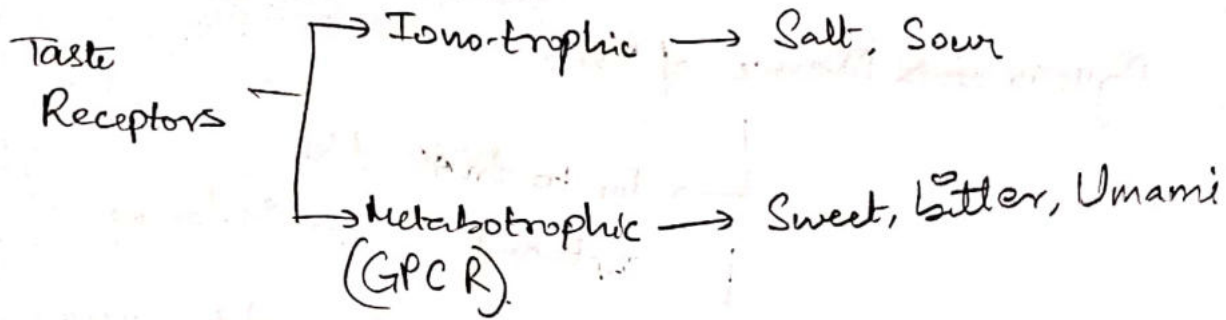
- $\rightarrow$ Along the sides of circum-vallate papillae (100-taste buds)
- $\rightarrow$ tip of fungi form papillae (5 taste buds)

Filiform - papillae $\rightarrow$ No taste buds.

Von-Ebner Glands (or) Gustatory Glands $\Rightarrow$ Along the cleft of circumvallate & fungiform papillae.

TASTE PATHWAY





Salty → ENaC (Epithelial Na Channel)

Sour → HCN (Hyperpolarisation Activated Cyclic nucleotide gated cation Channel)

→ ENaC

→ Allows Na^+ influx

→ Allows H^+ influx

↓
binds to K^+ channels

↓
prevents K^+ efflux

depolarisation

Sweet Receptors → T_1R_2
 T_1R_3

Bitter Receptors → T_2R family

Umami → mGluR₄

Aguesia $\Rightarrow$ Absence of taste

- due to drugs like captopril & penicillamine
- Vit-B₁₂ / Zinc deficiencies
- damage CN VII (or) CN IX

Hypoguesia
 $\downarrow$
diminished taste

- Ageing
- Tobacco

Paraguesia (or) Dysguesia $\Rightarrow$ Unpleasant taste.

Administration of Serotonin-uptake inhibitor $\rightarrow$ dec. Sweet threshold

Administration of NE-uptake inhibitors $\rightarrow$ dec. bitter & sour taste threshold

25% population $\Rightarrow$ high sensitivity to bitter.

$\Downarrow$

called as
"Super tasters"

$\Downarrow$

due to
more
fungiform
papillae.