



ARJUNA NEET BATCH

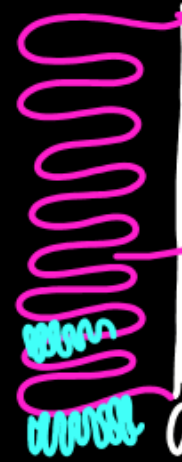


STRUCTURAL ORGANISATION IN ANIMALS- LECTURE -03



③ Simple Columnar Epithelium

C&F
(Cerebrospinal fluid)



Villi

① Smooth Surface



Secretion

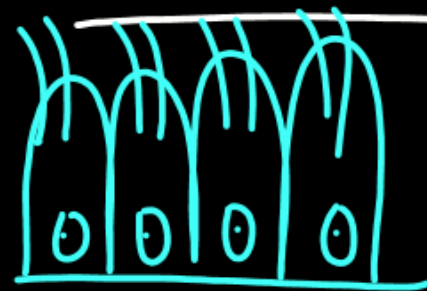
eg:

STOMACH

Goblet cells

produce Mucus

② Ciliated Columnar



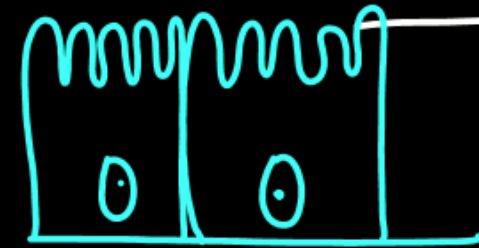
→ Movement

eg

Fallopian tube,
Large Bronchioles

Ventricles of Brain,
Central canal of Spinal cord.

③ Brush-Bordered Columnar



(Microvilli)

→ Secretion & Absorption

eg: Small intestine

④ ^{***} Pseudostratified Epithelium;
false MultiLayered

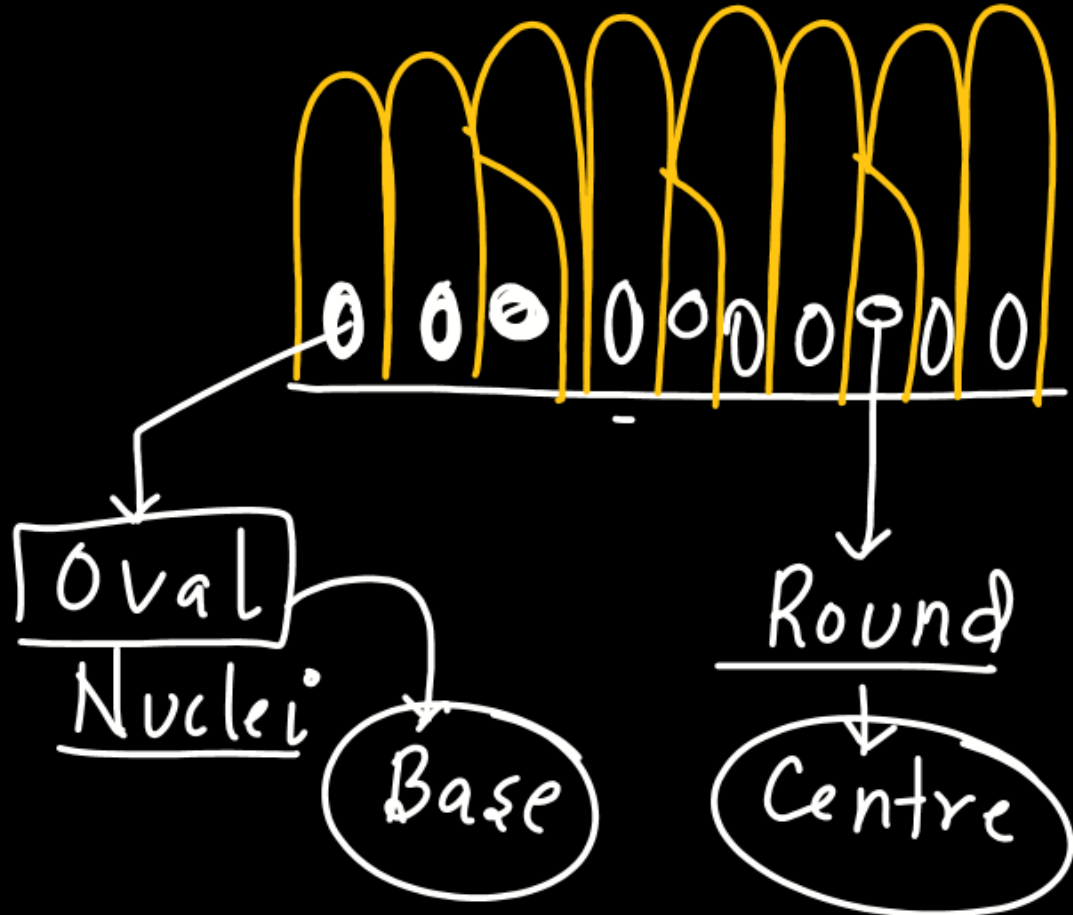
This is single Layer of cells but it appears multilayered.

All cells

COLUMNAR

Some are short

Some are Nuclei OVAL Tall



Nuclei ROUND

Pseudostratified



⑤ Glandular Epithelium: Cells are either Cuboidal/Columnar
↳ function - Secretion.

① On the Basis of Number of Cells

① UNICELLULAR

Single cell acting as a gland

eg: Goblet cells

↳ Mucus producing

② MULTICELLULAR

↓
Multiple cells functioning together as a gland.

eg: Salivary gland, Thyroid,
Pituitary

① On the basis of presence/absence of Ducts



① EXOCRINE

Are those which pour their secretion via DUCTS

eg: Salivary gland, sweat gland.



② ENDOCRINE

Are DUCTLESS glands, pouring their secretion directly into Blood stream.

→ eg: Thyroid, Hypothalamus etc.

③ MIXED/ HETEROCRINE

has Both Endocrine as well as Exocrine part.

* Pancreas & Testes, Ovary.

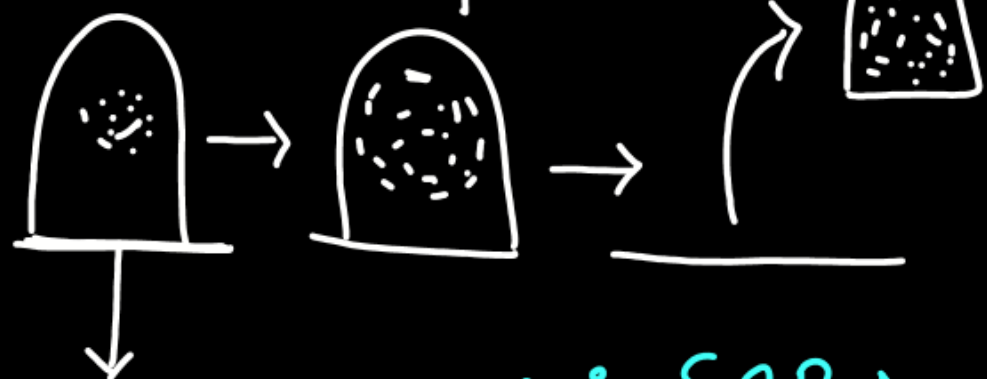
III) On the basis of Nature of Secretion / mode of Secretion

Complete cell comes out as Secretion



① HOLOCRINE

complete secretion



Basement

eg: SEBACEOUS GLANDS or WAX GLANDS (OIL GLANDS)

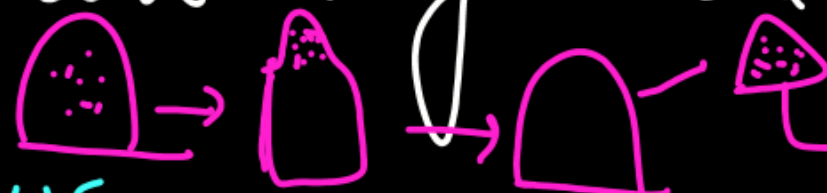
②

APOCRINE

eg: Mammary glands

Apical secretion

only the apical part comes out along with secretion.



apical part comes off as secretion.

③

MEROCRINE

ONLY SECRETION COMES OUT via Diffusion.
eg: Goblet cells

II) COMPOUND EPITHELIUM → Multilayered
→ Less Role in Secretion & Absorption
→ Gives Protection.

a) STRATIFIED
→ deepest Layer → Columnar
→ Superficial Layer → Varies according to its type

(i) Stratified Squamous
→ Superficial Layer
↓
FLAT

(ii) Stratified Cuboidal
→ Superficial Layer
↓
Cuboidal

(iii) Stratified Columnar
→ Superficial Layer
↓
Columnar

b) TRANSITIONAL
→ deepest Layer
↓
Cuboidal
→ Superficial Layer → Oval / Round / Flat
• No Basement Membr
• Stretchable - range
Property



Thank You