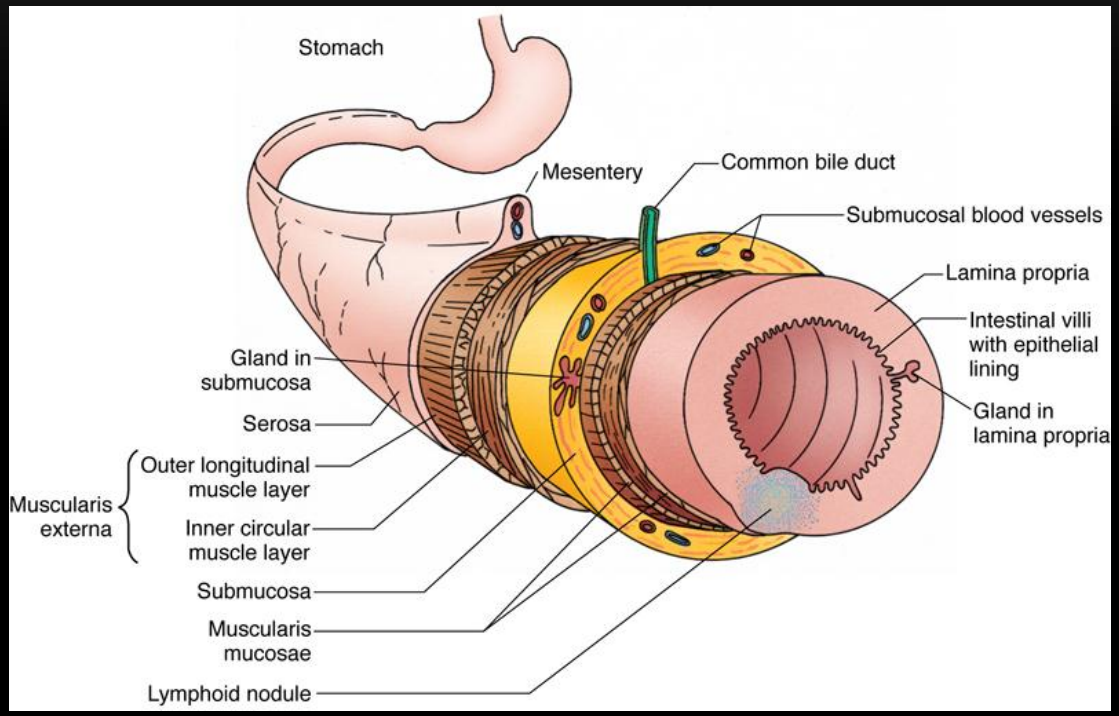
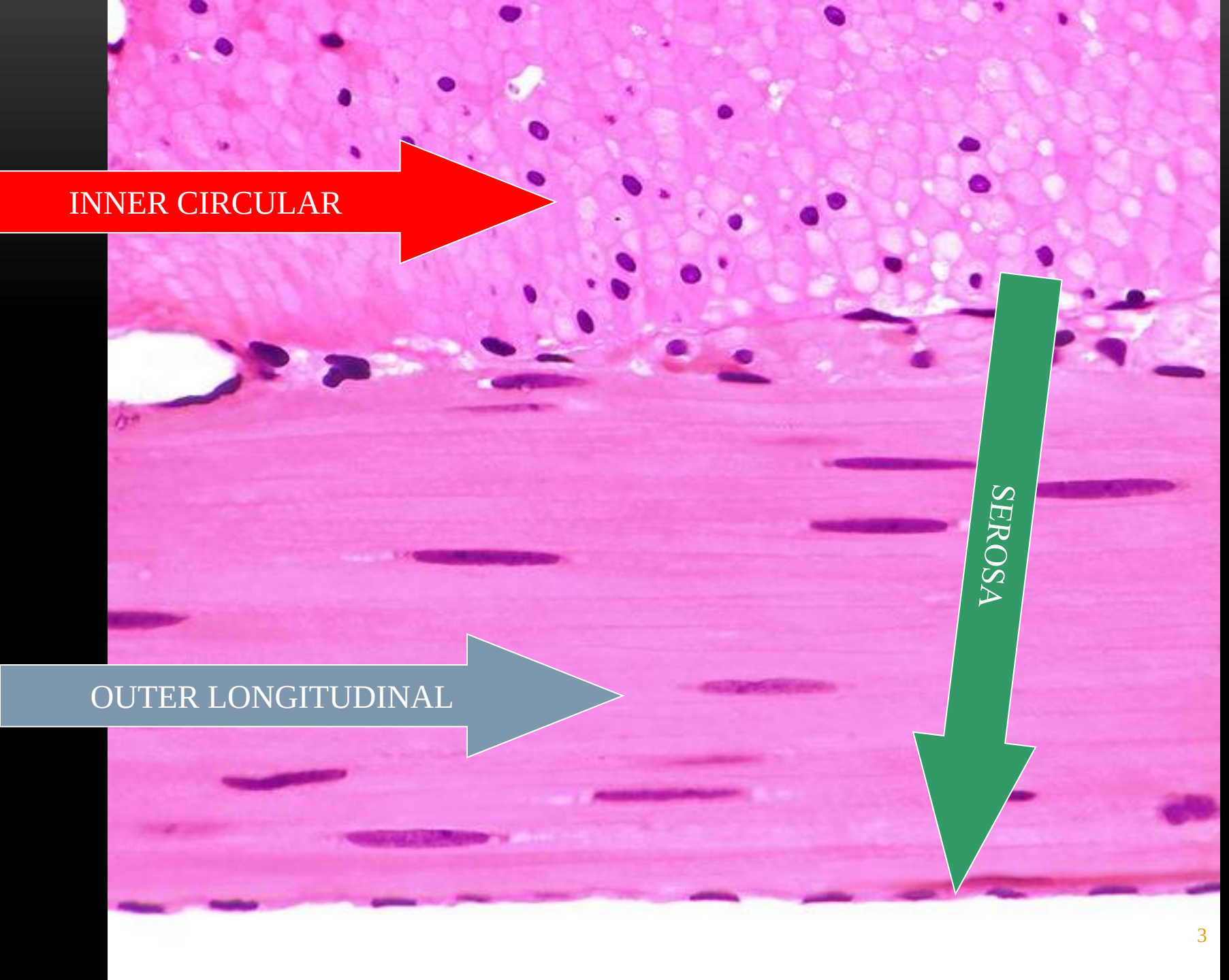
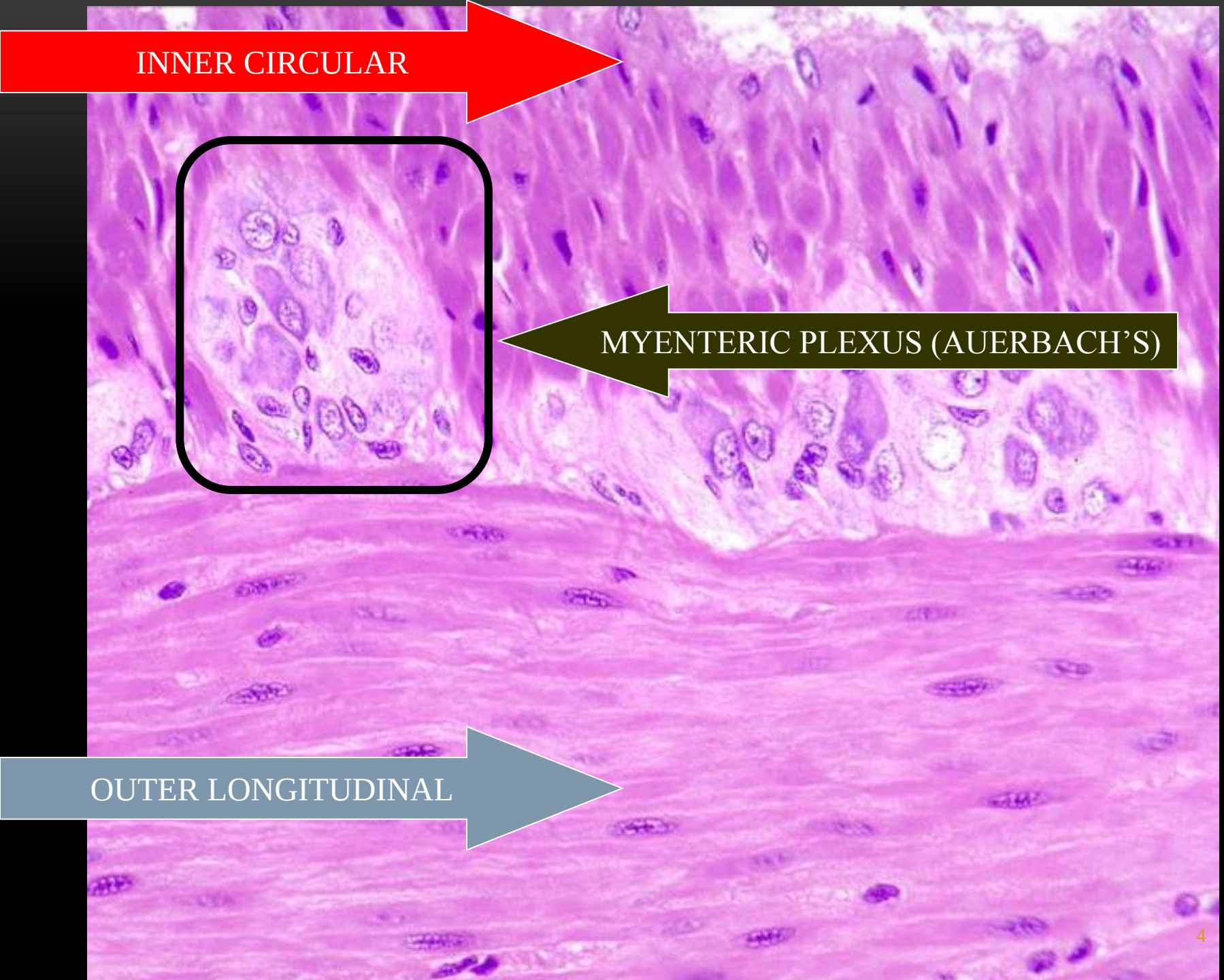
Histology of the Esophagus & Stomach

THE WALL OF THE ALIMENTARY TRACT:

- **Mucosa**:
  - Epithelium
  - Lamina propria
  - Muscularis mucosa
- **Submucosa**:
  - Connective tissue
  - Submucosal plexus (Meissner's plexus).
- **Muscularis externa**:
  - Inner circular
  - Outer longitudinal
  - Auerbach's myenteric plexus.
- **Serosa or adventitia**

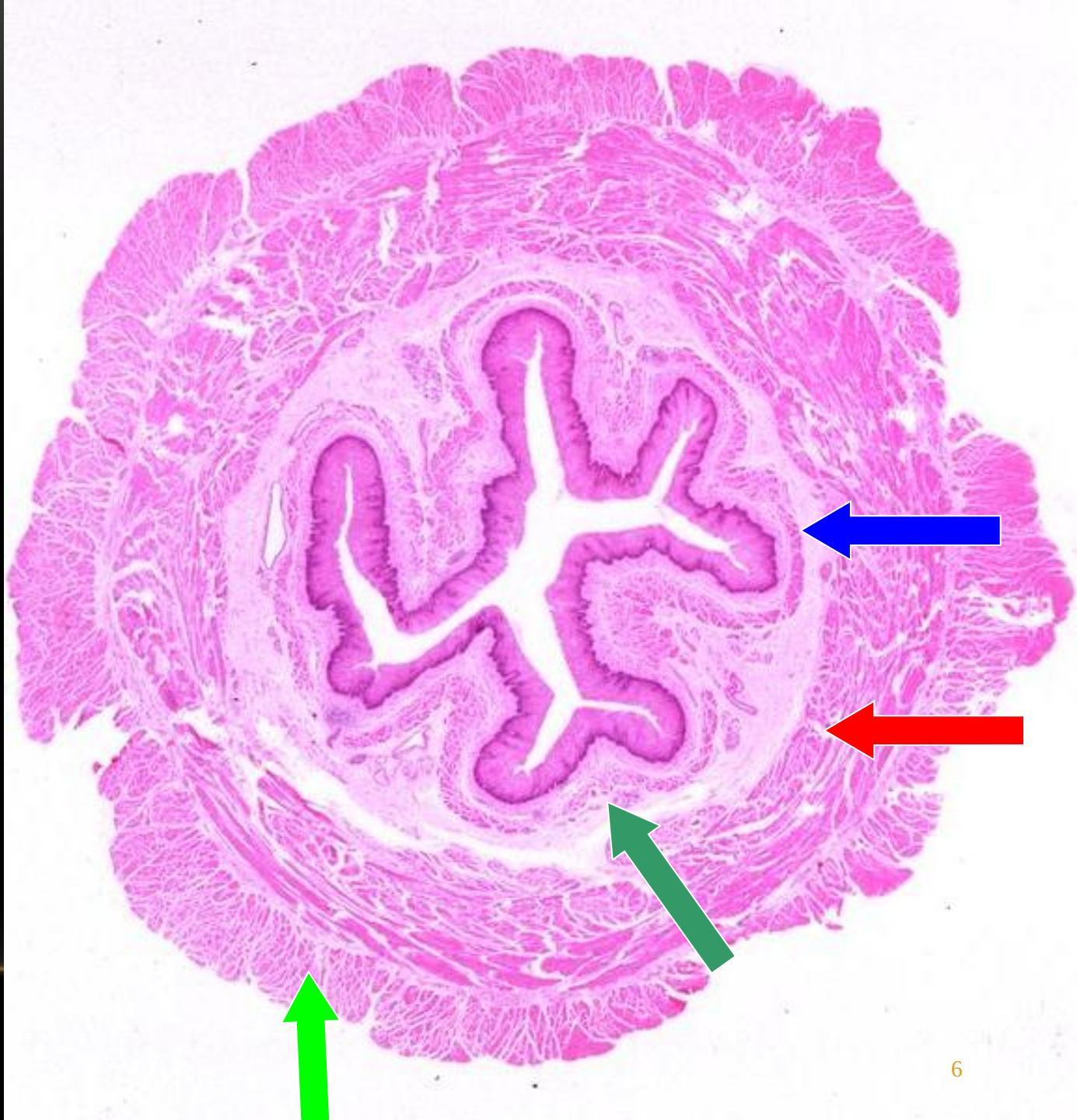


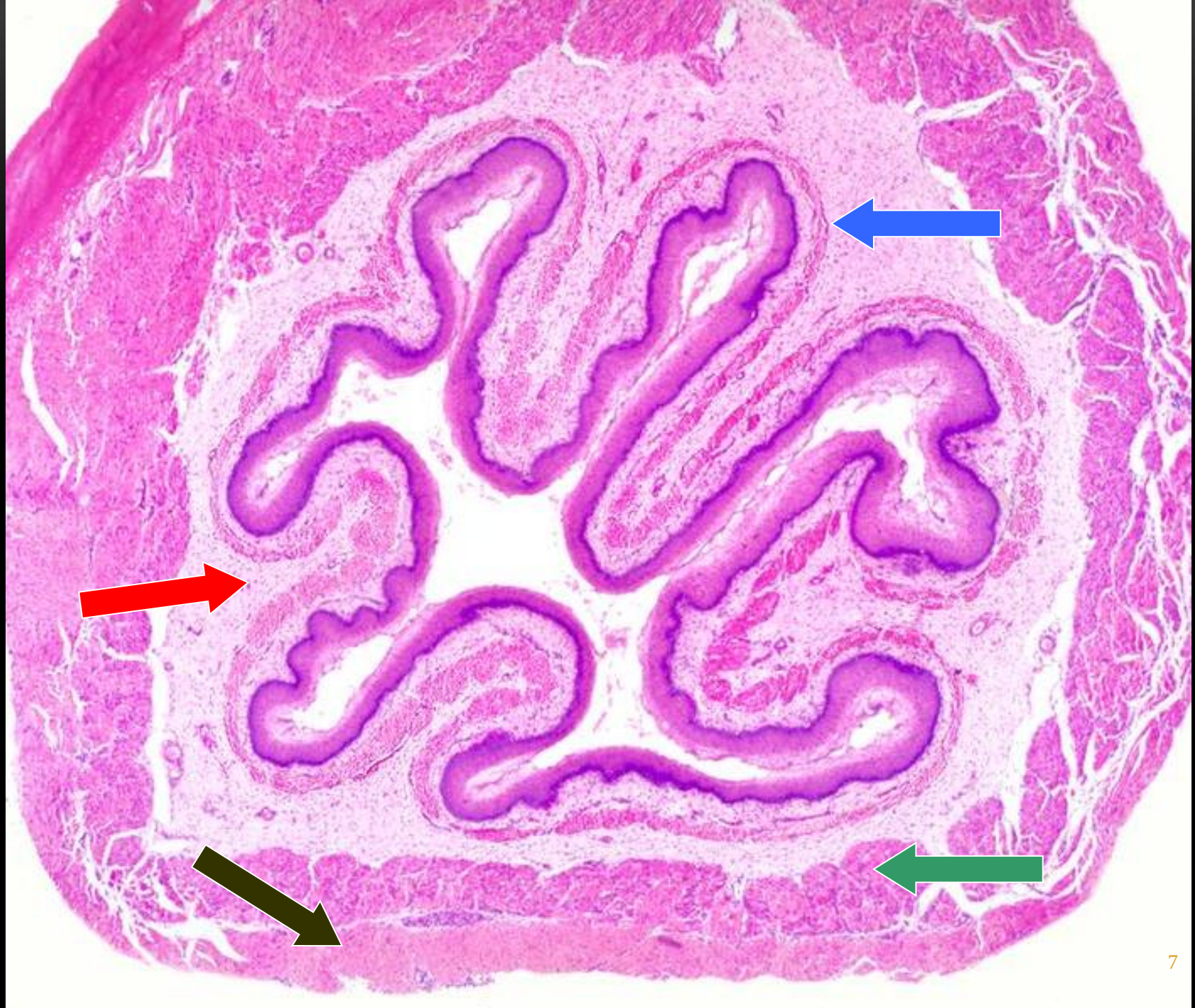

INNER CIRCULAR
OUTER LONGITUDINAL
SEROSA

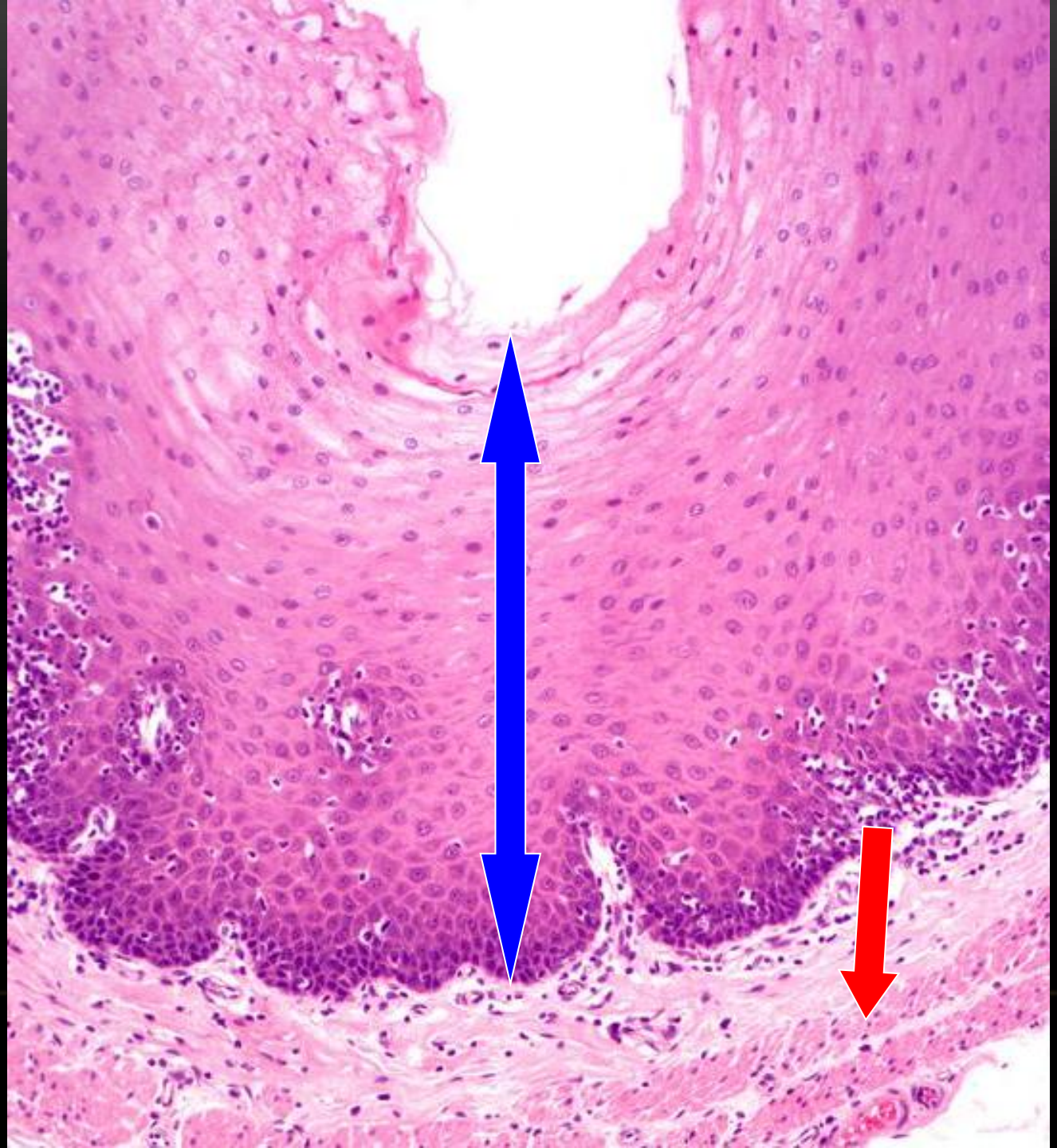

INNER CIRCULAR
MYENTERIC PLEXUS (AUERBACH'S)
OUTER LONGITUDINAL

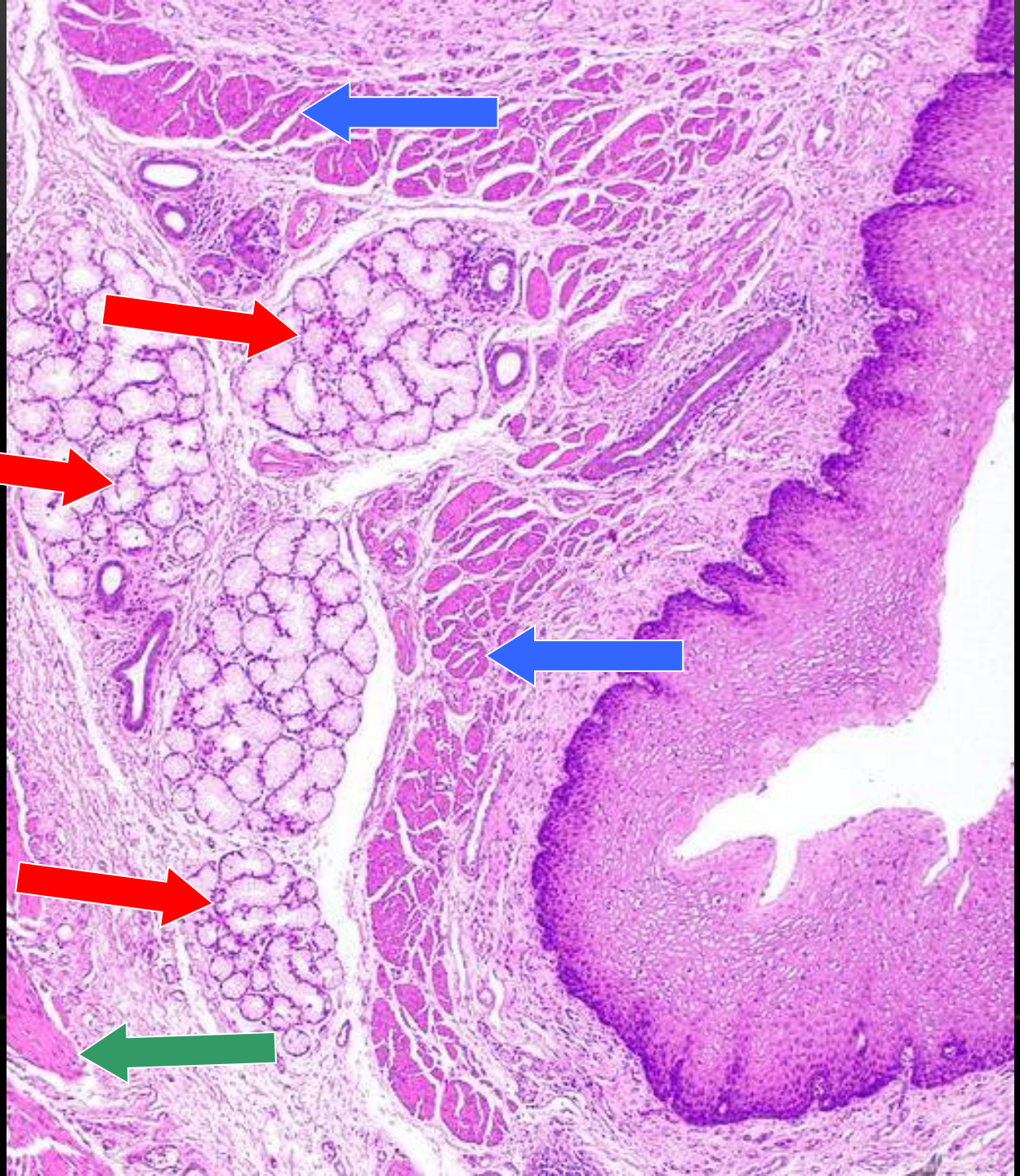
ESOPHAGUS

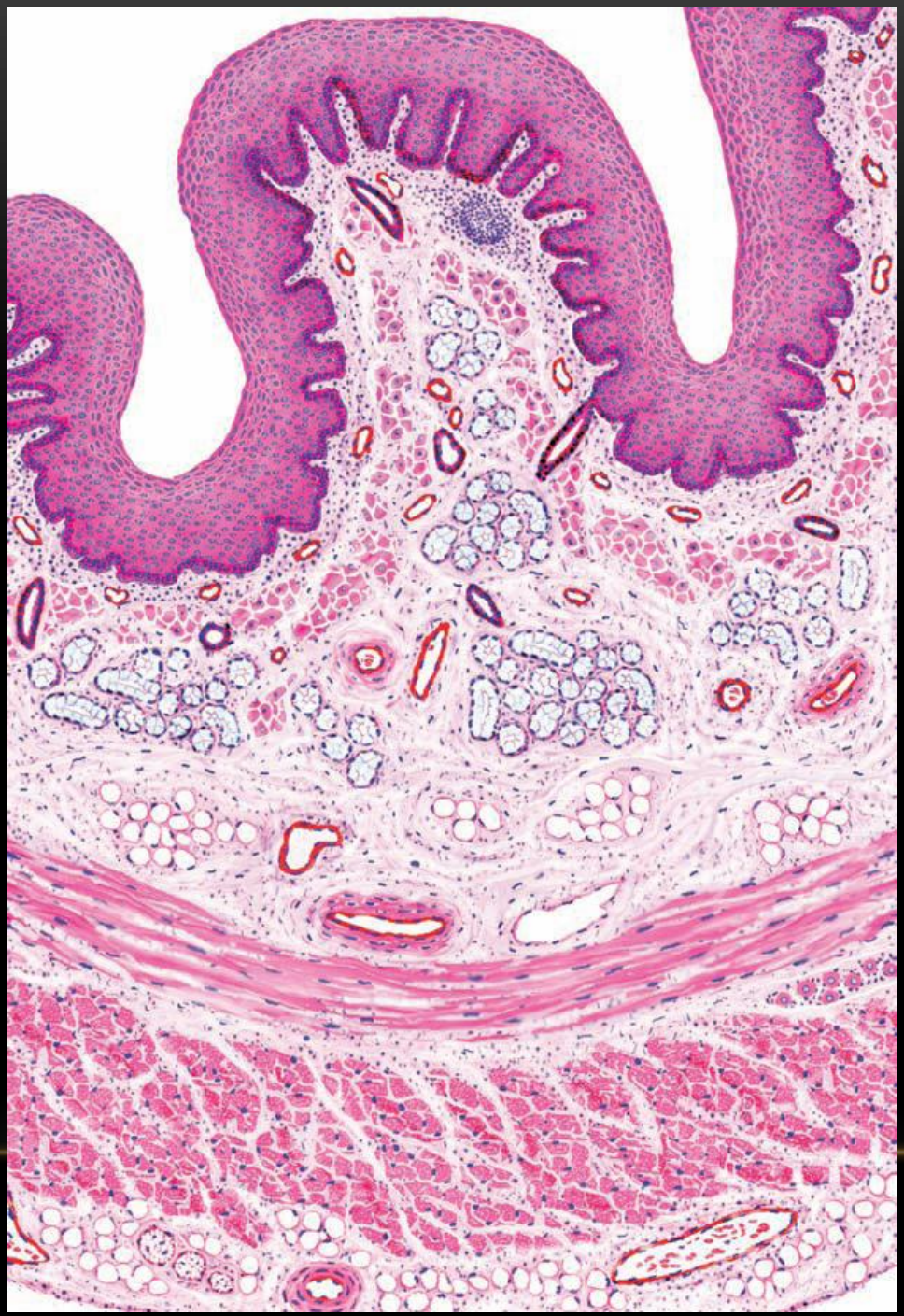
Esophagus



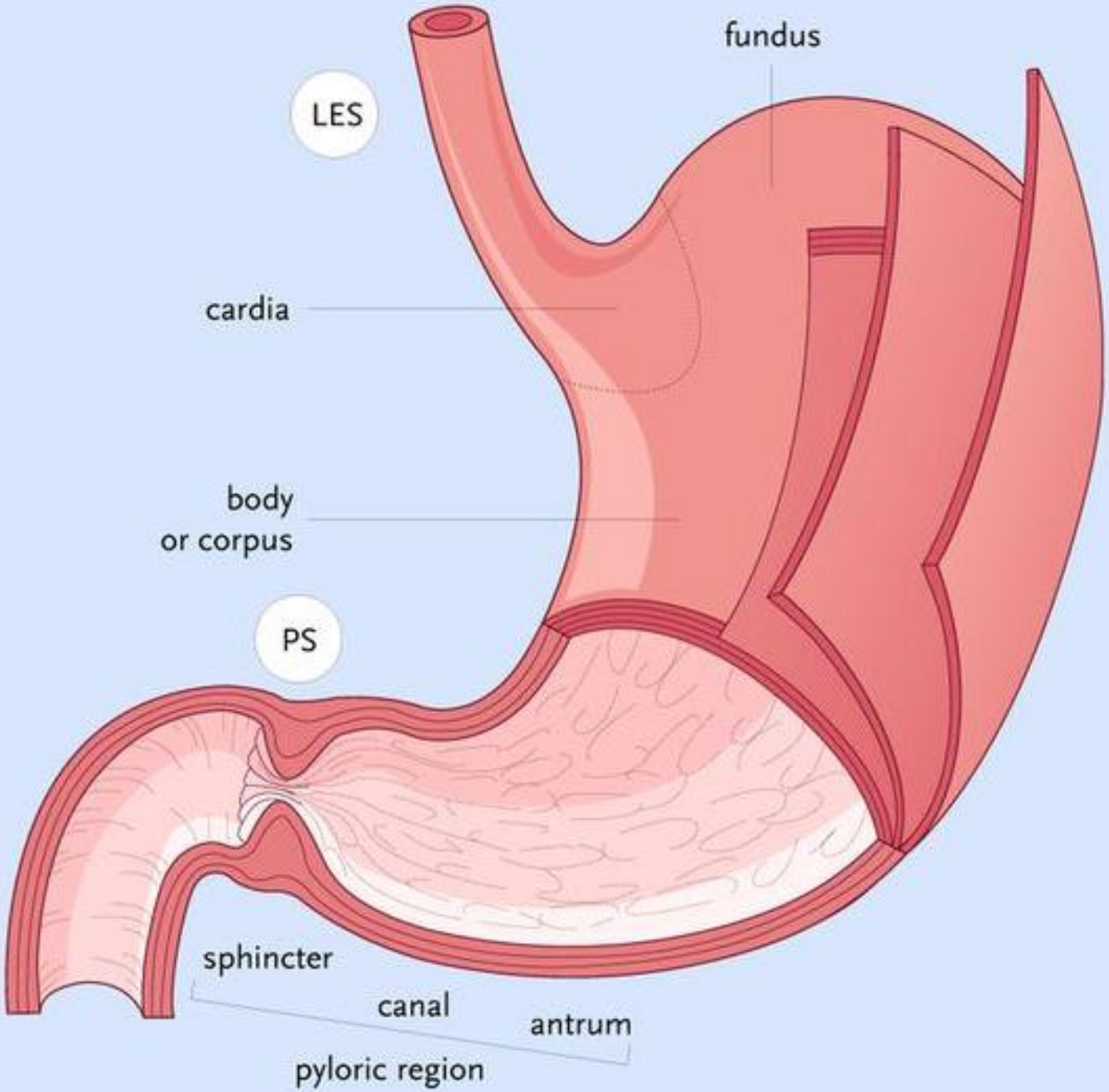


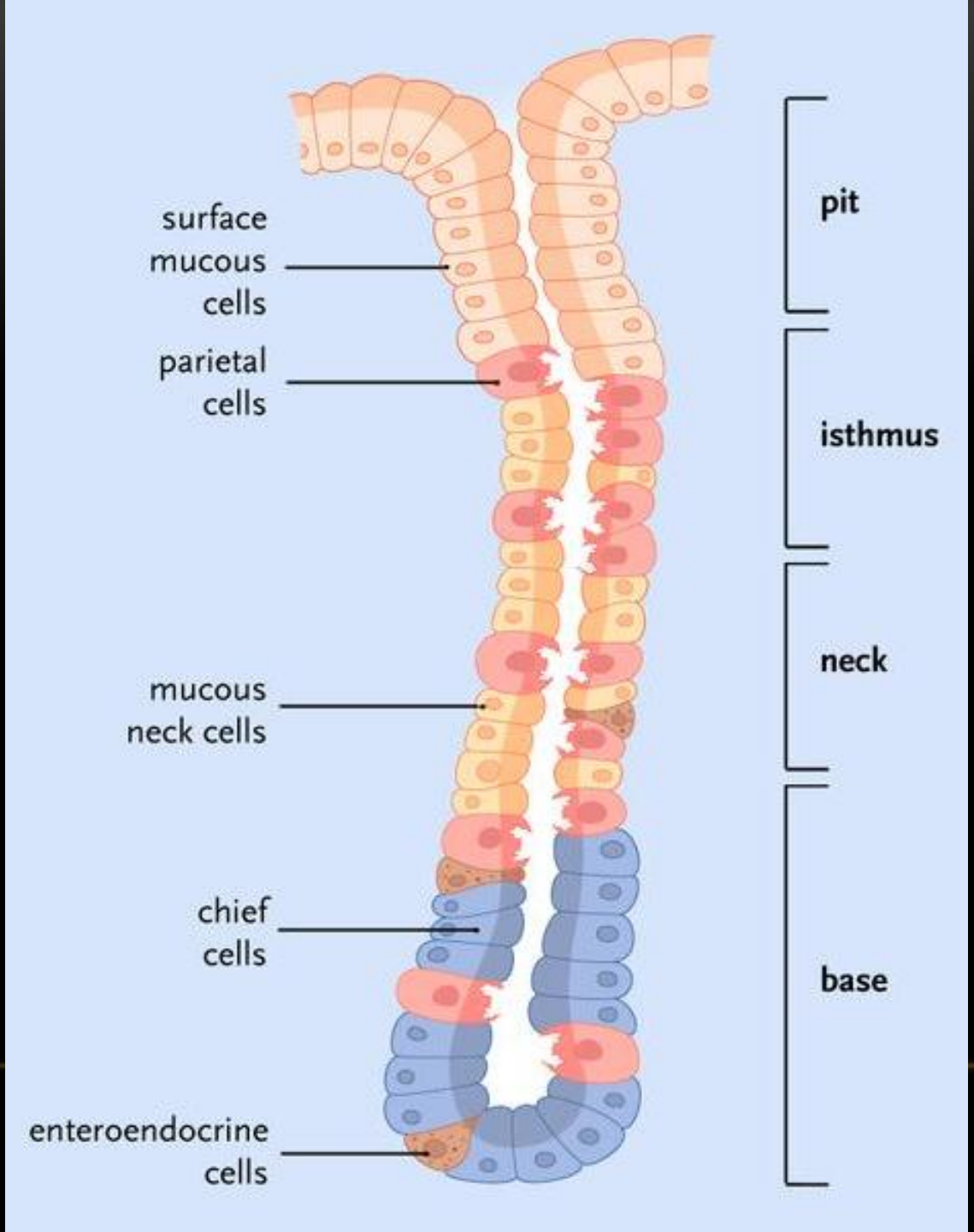


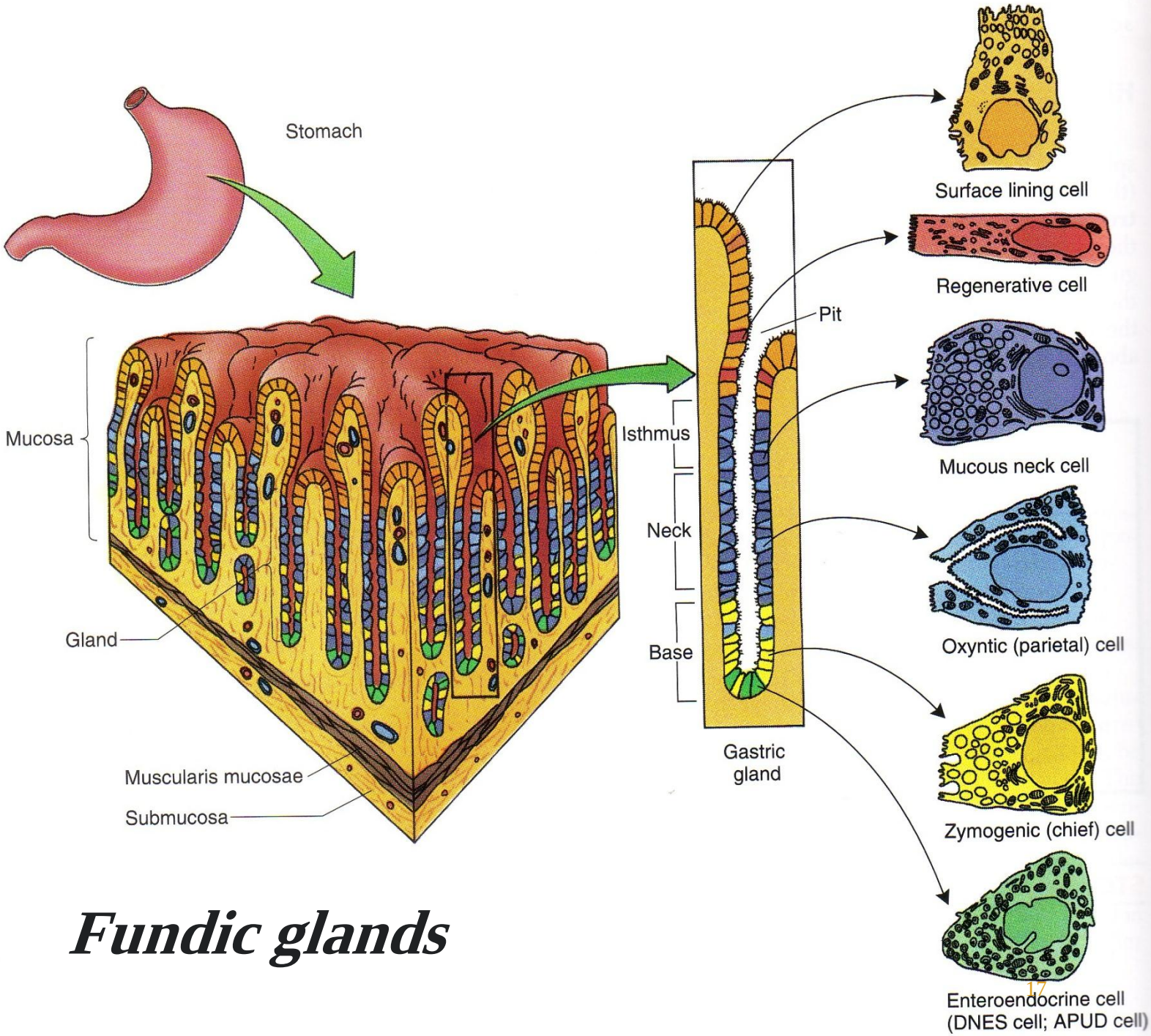




STOMACH

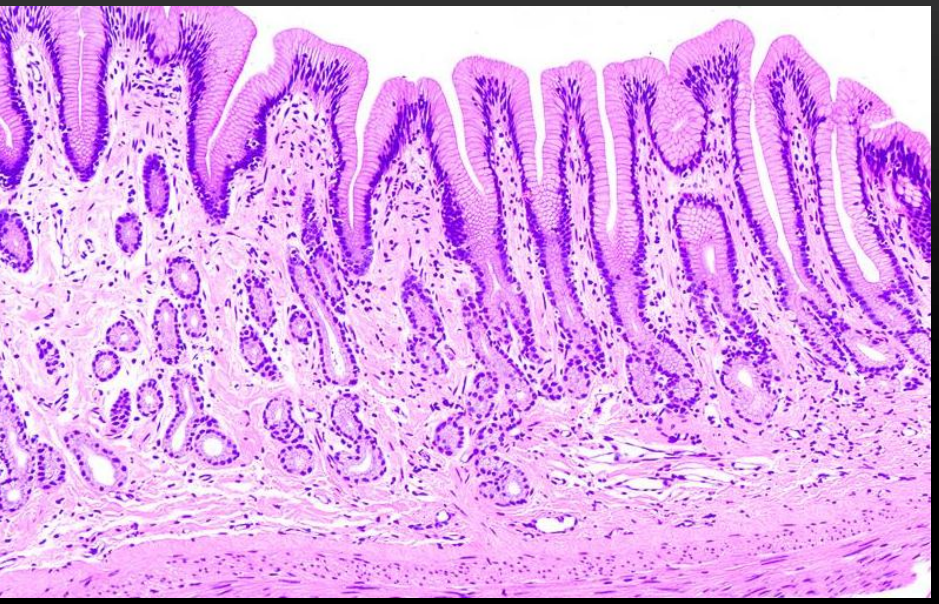

fundus
LES
cardia
body
or corpus
PS
sphincter
canal
antrum
pyloric region

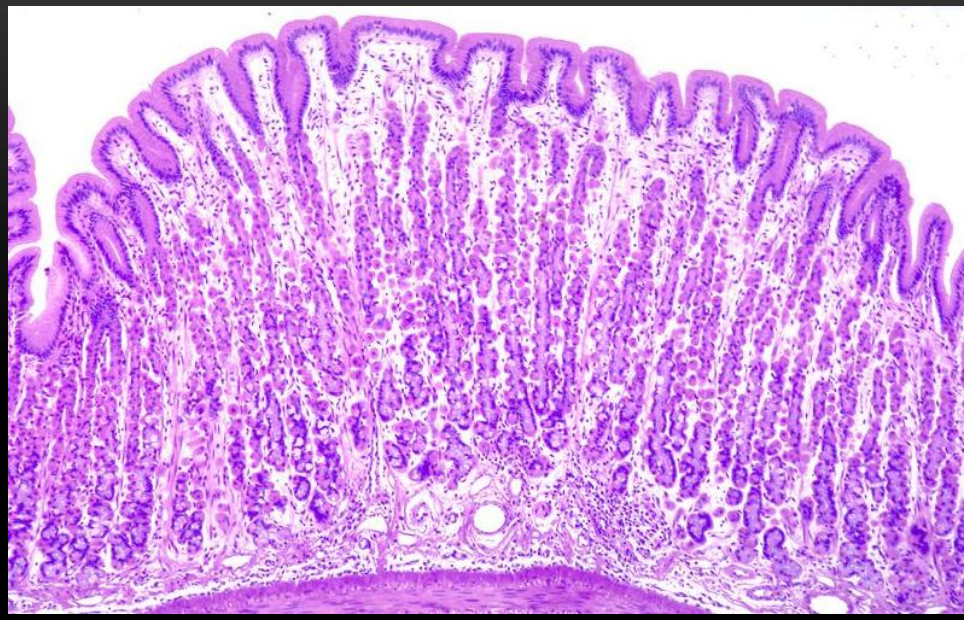

surface mucous cells
parietal cells
mucous neck cells
chief cells
enteroendocrine cells
pit
isthmus
neck
base

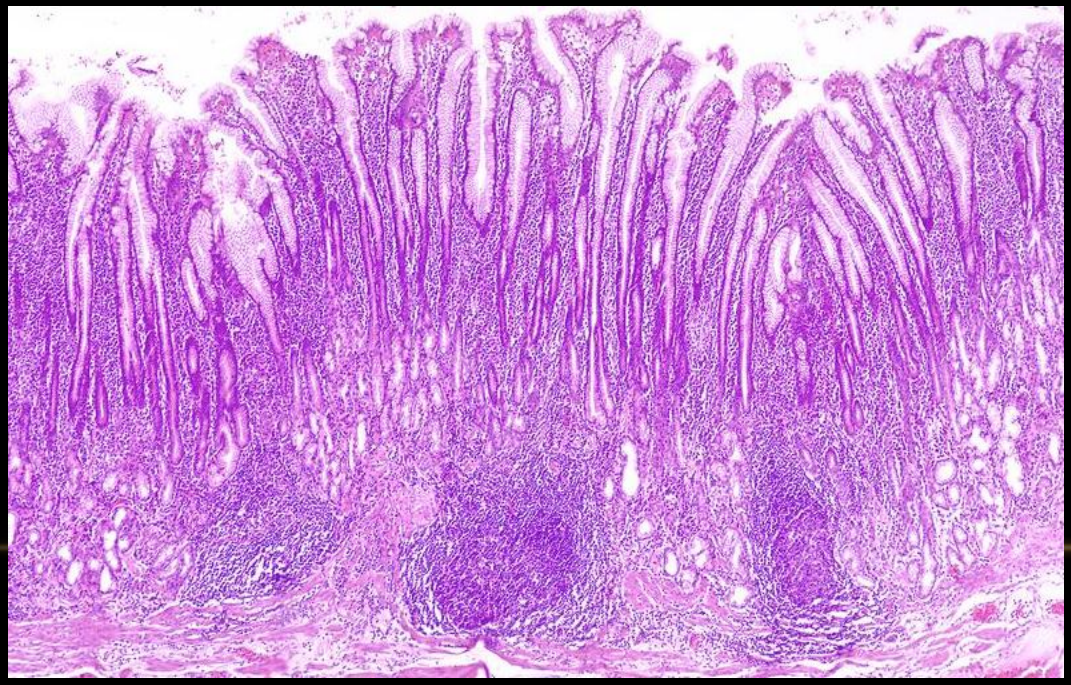


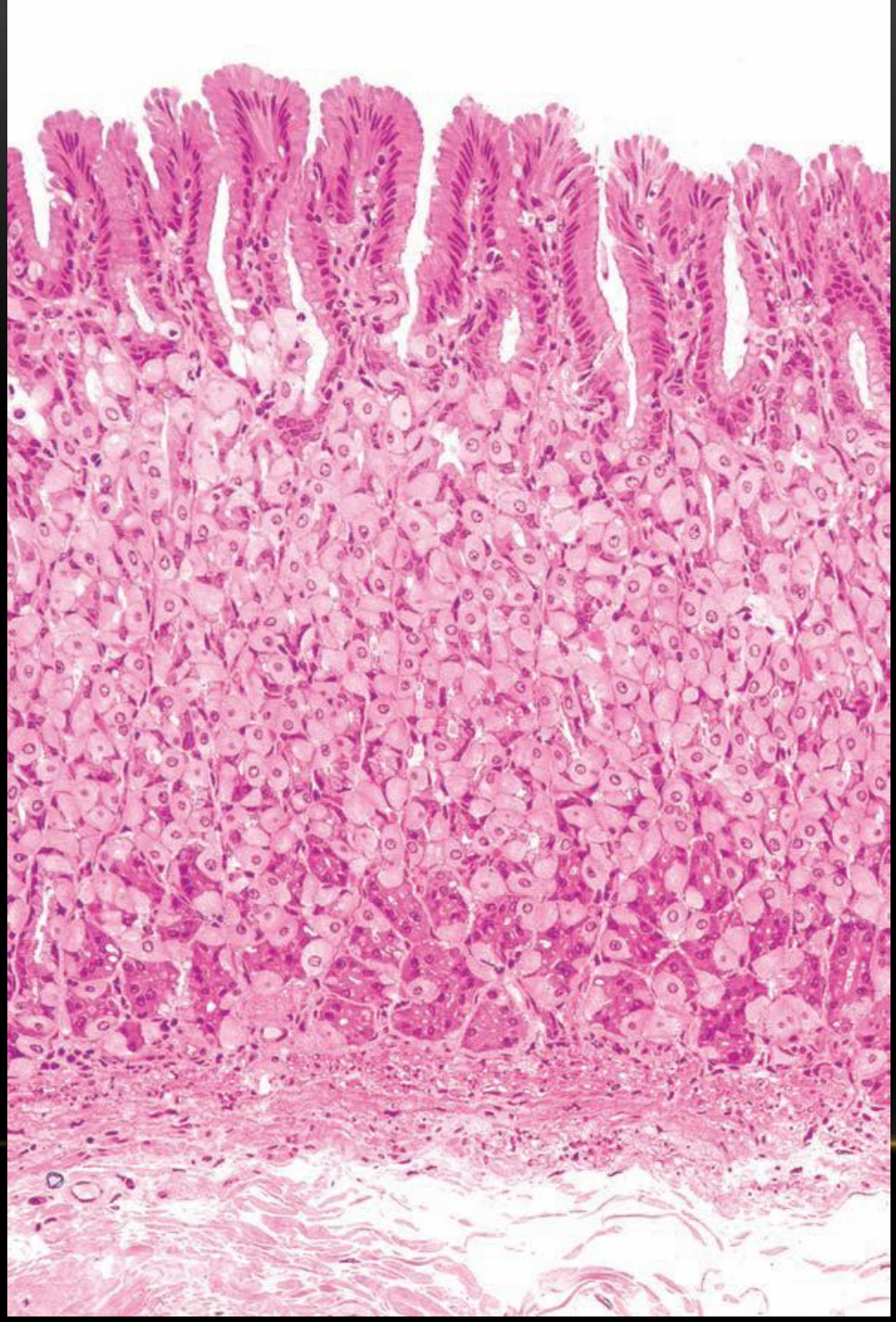
Fundic glands

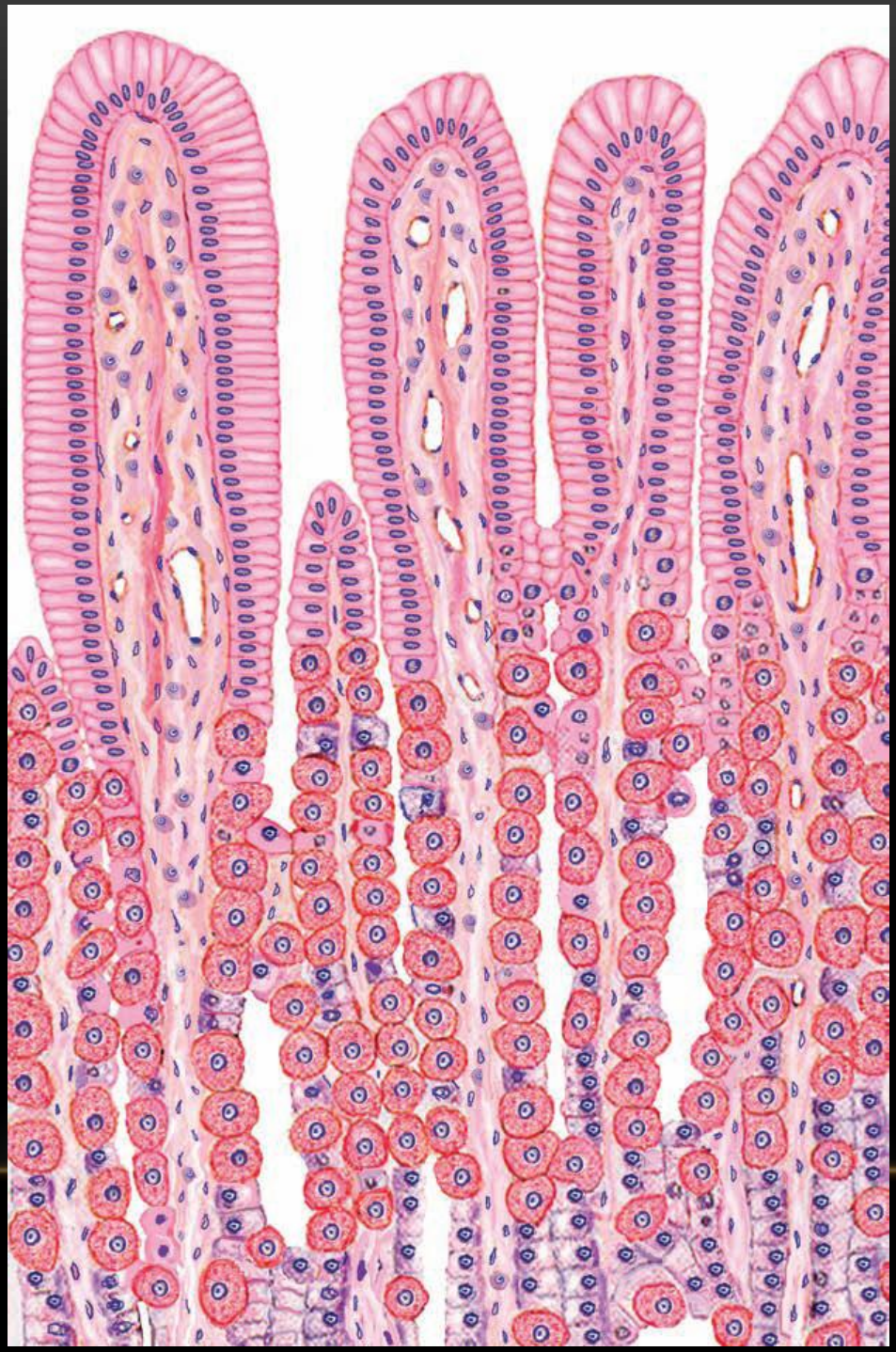
	Cardiac	Fundus and Body	Pyloric
Epithelium	Same	Same	Same
Cells ** Surface mucous	Cover entire luminal surface	Same	Same
** Neck mucous	Line neck region	Same	Same
** Chief	Absent	Abundant in the basal part	Absent
** Parietal	Absent	Abundant in the upper part of body of glands and between mucous neck cells	Few
** DNES	Rare	Rare	Rare
Mucosal glands	Wide deep, gastric pits with short slightly coiled simple tubular glands; pits extend less than1/2 of mucosa	Narrow shallow pits with straight, branched tubular glands; pits extend less than 1/5 of mucosa	Wide, deep pits with coiled, branched, tubular glands, pits extend > ½ mucosa
Muscularis externa	Present	Present	Present
Serosa	Present	Present	Present

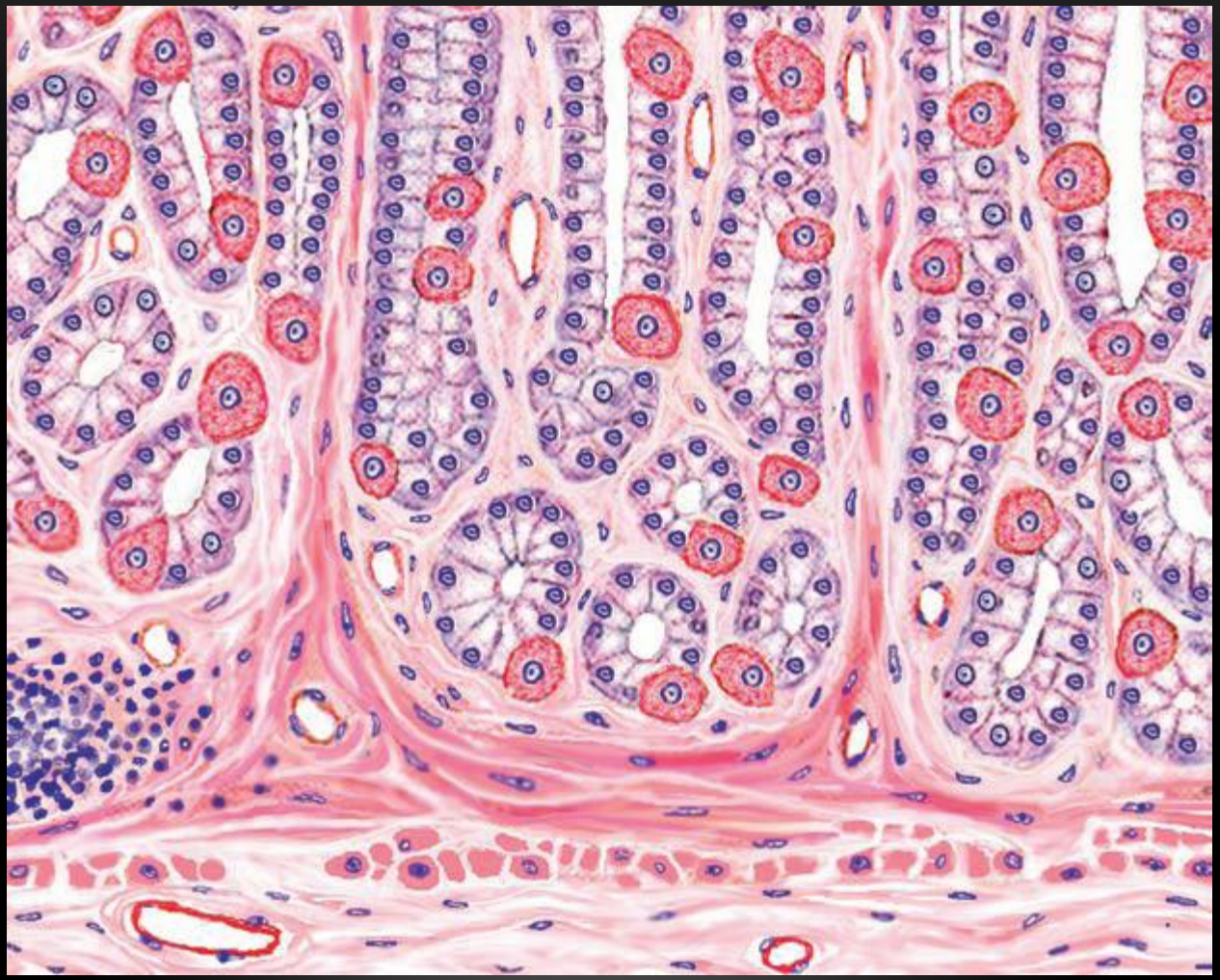


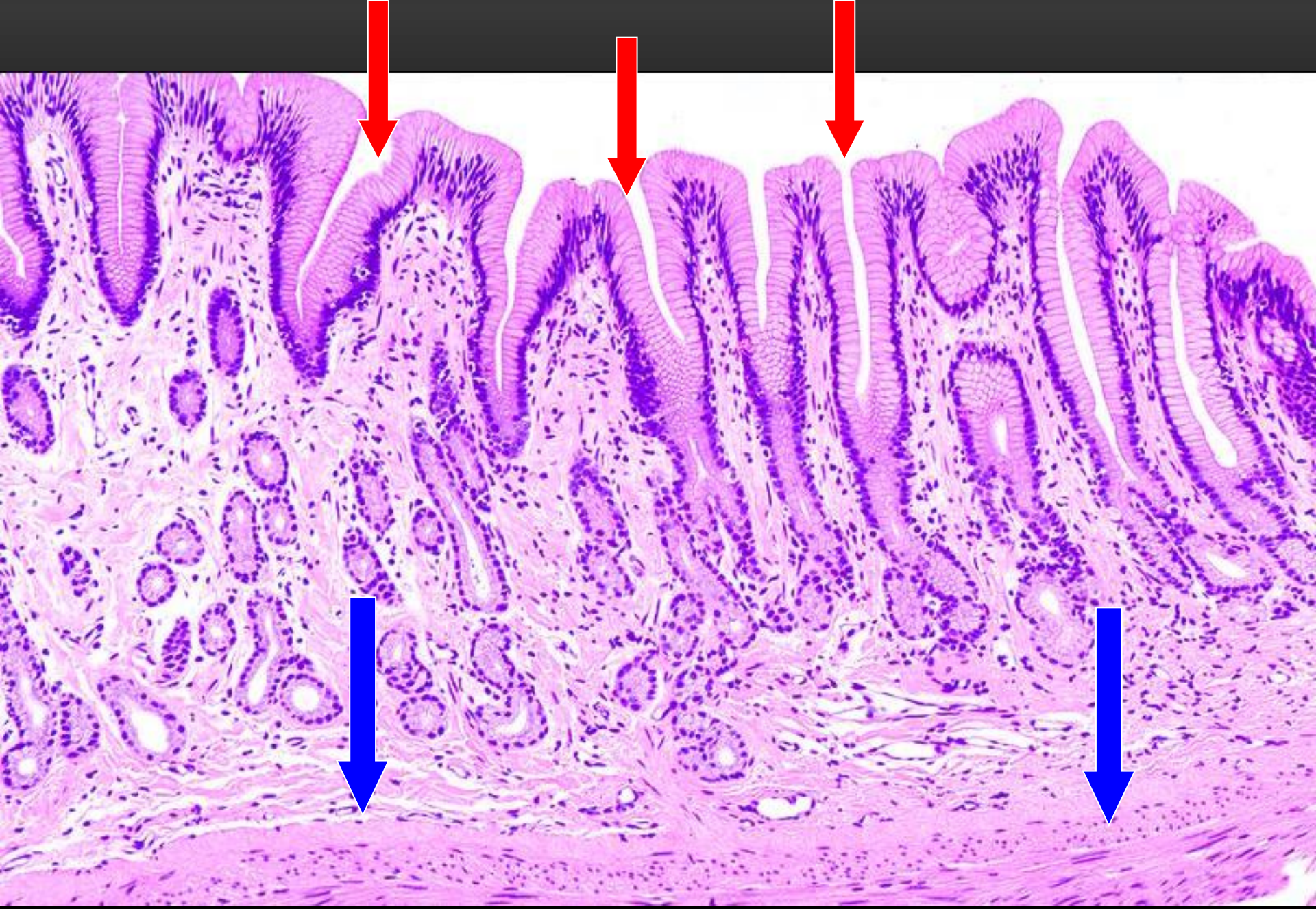






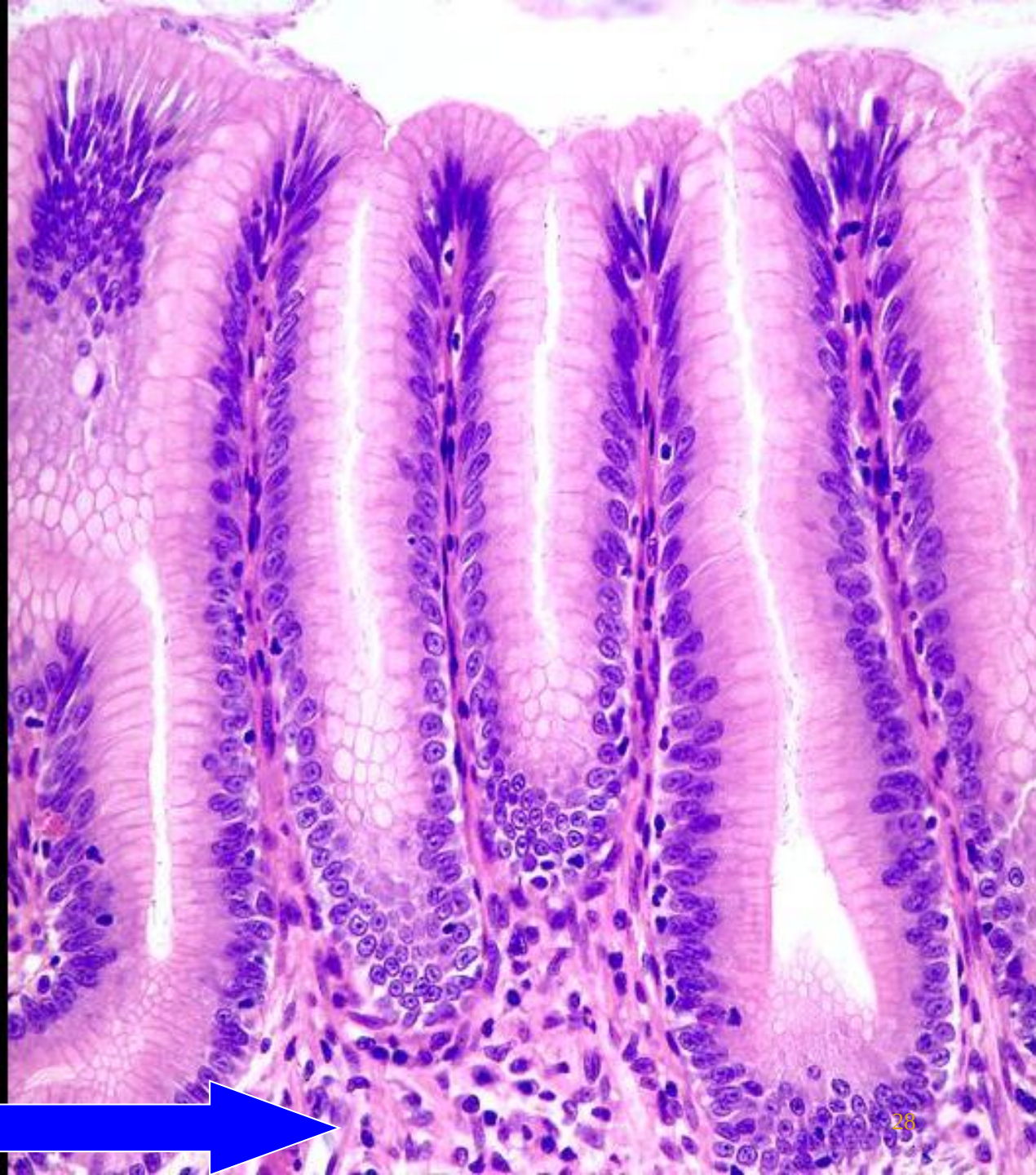


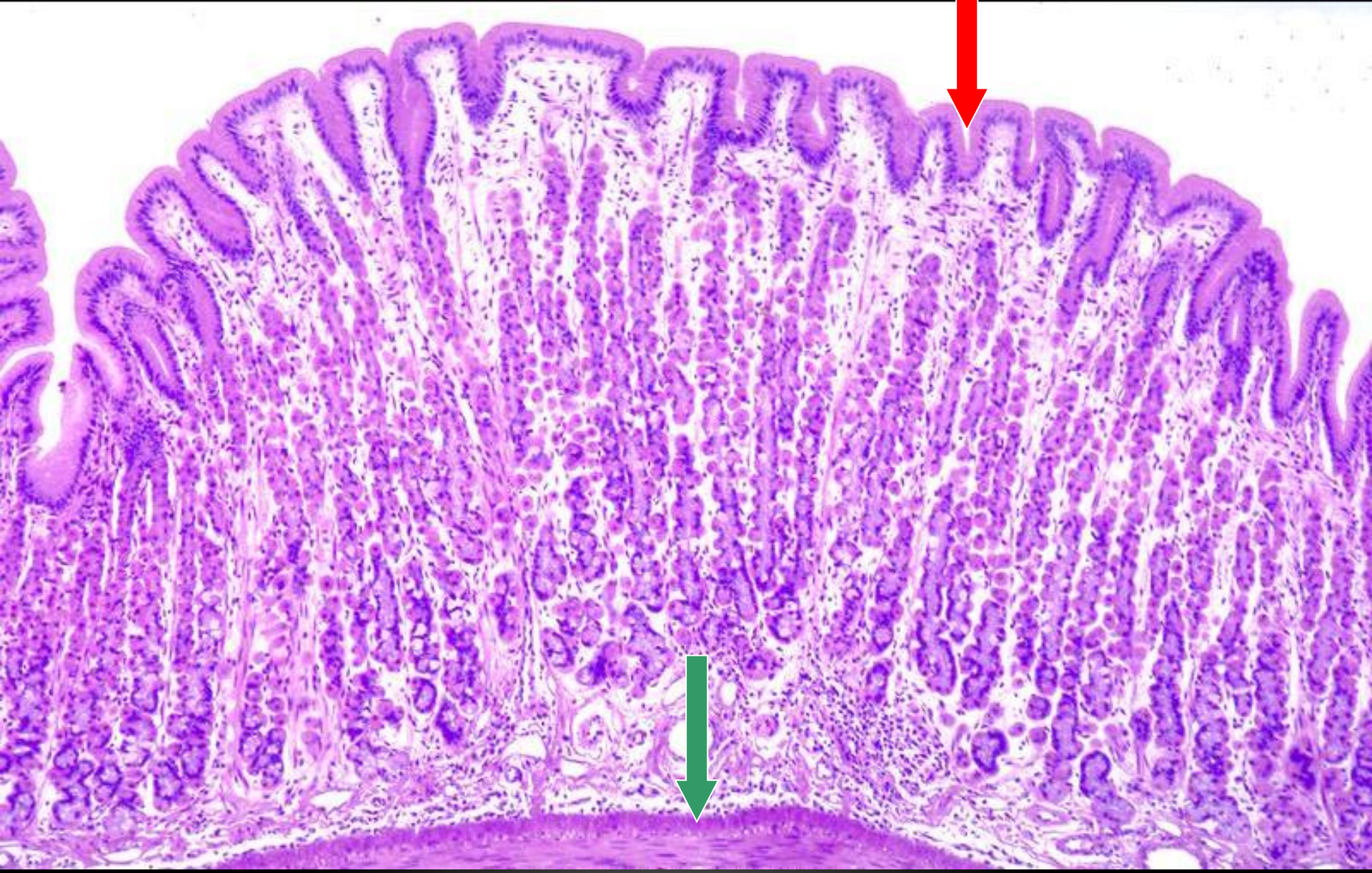




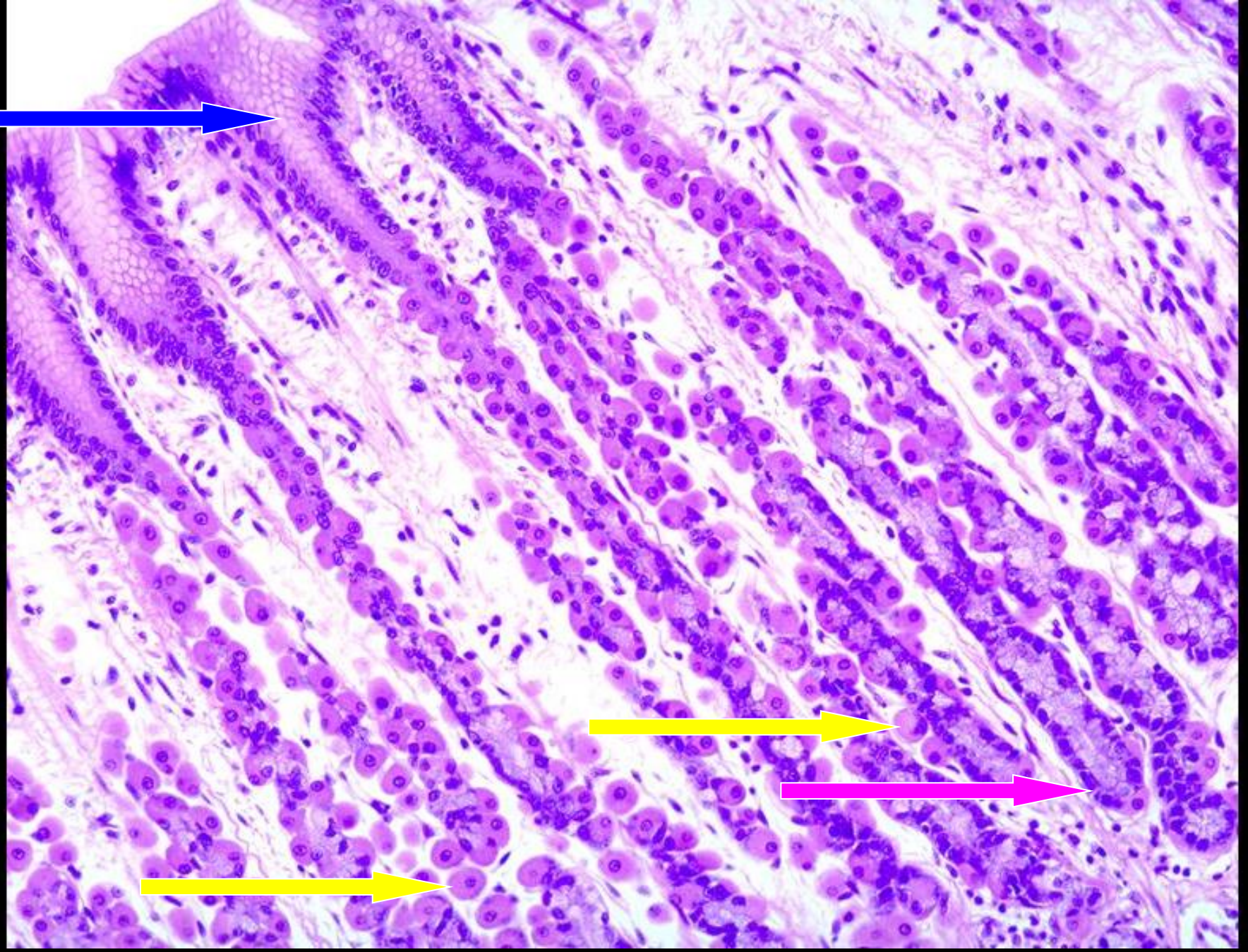
Cardiac region of the stomach

Surface mucous cells

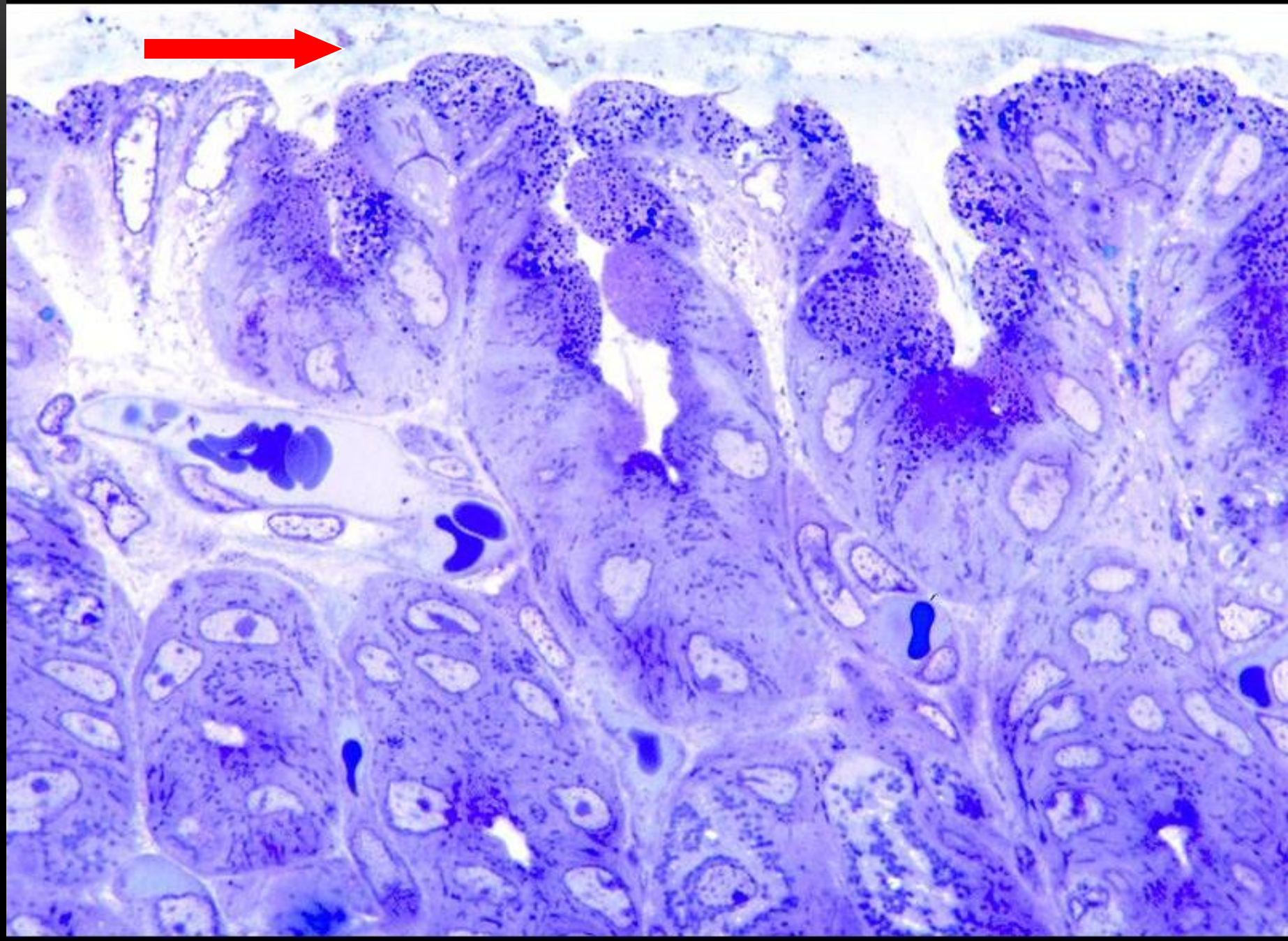


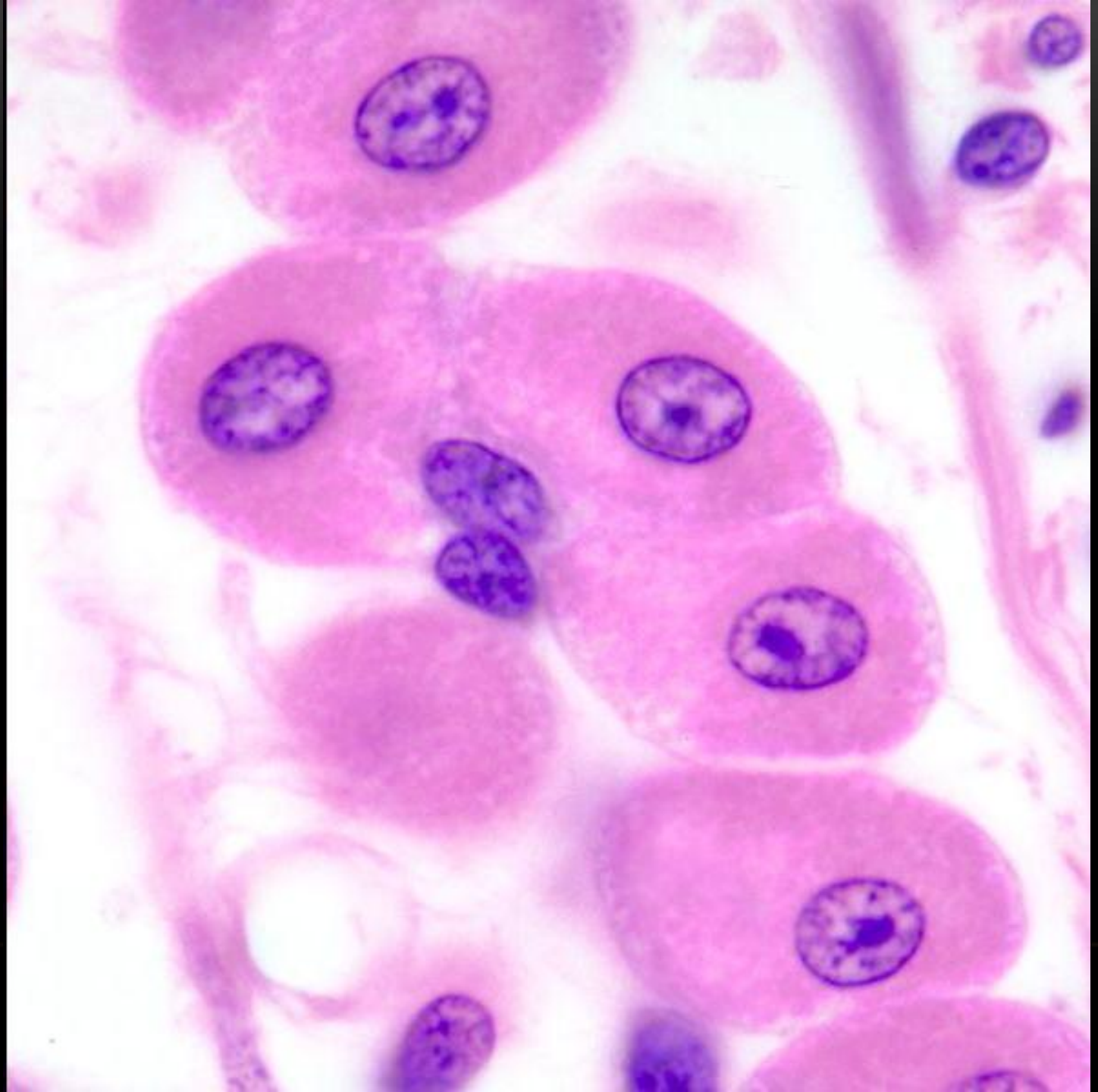


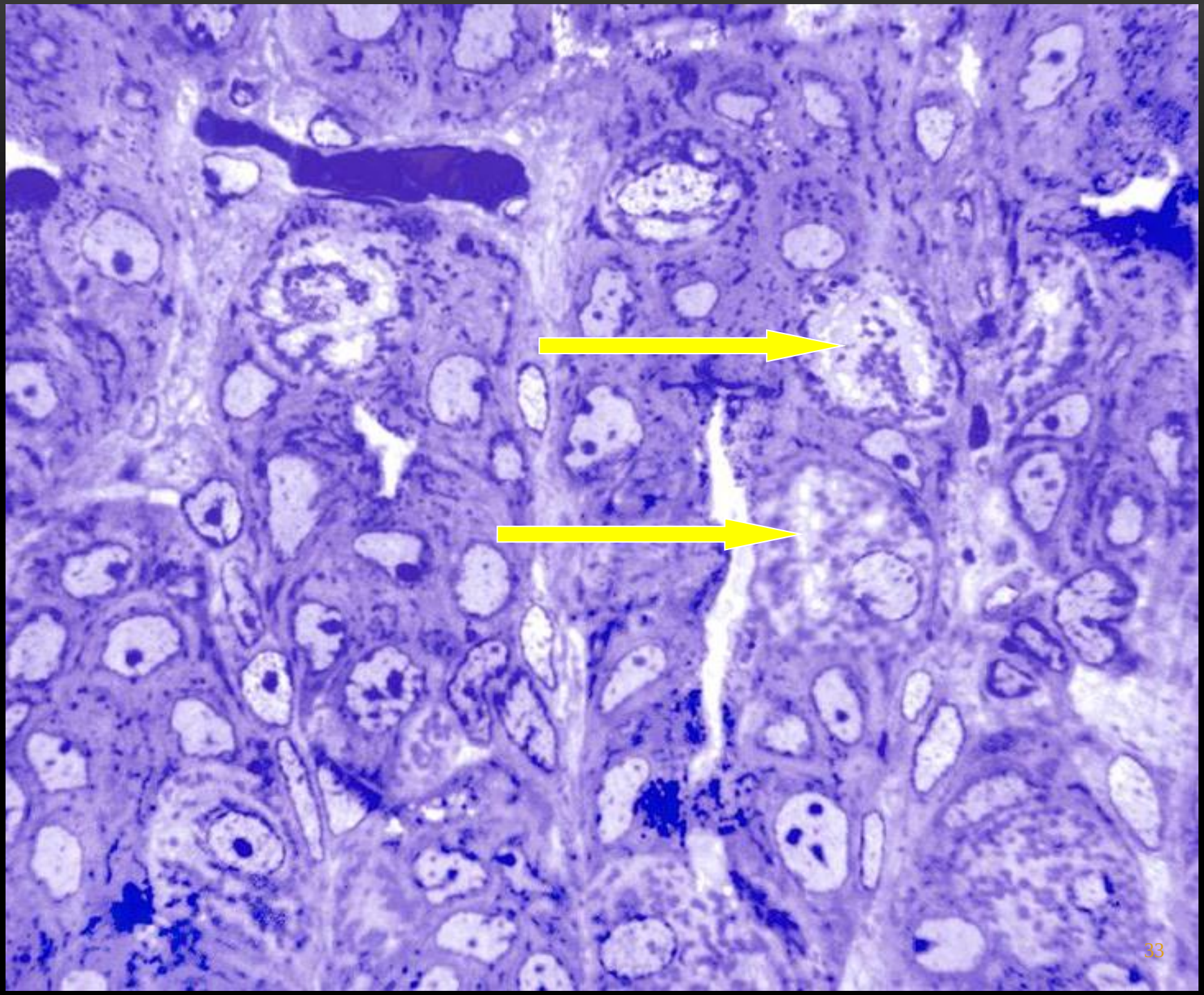
Fundus of the stomach



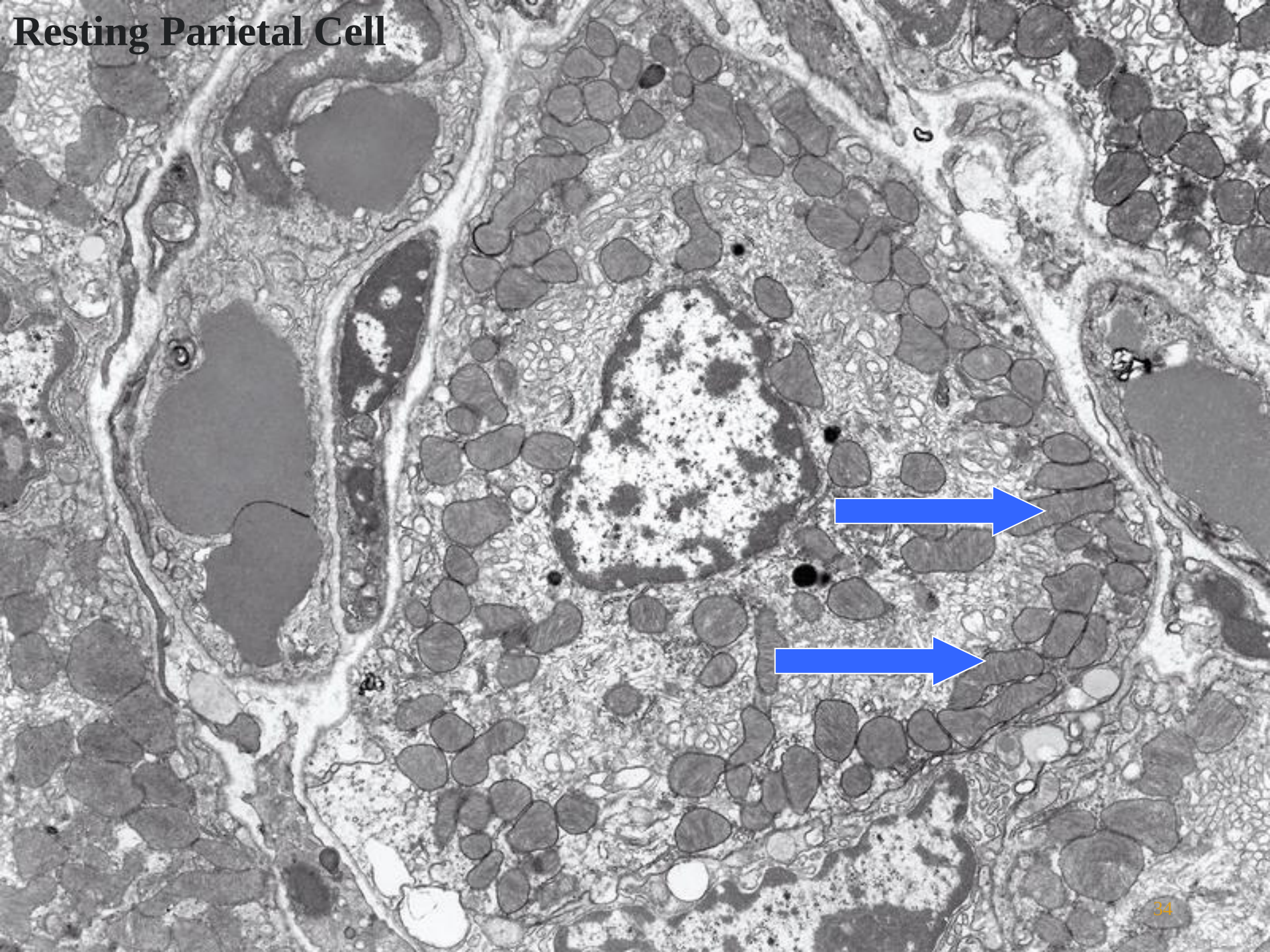
Body of gastric mucosa



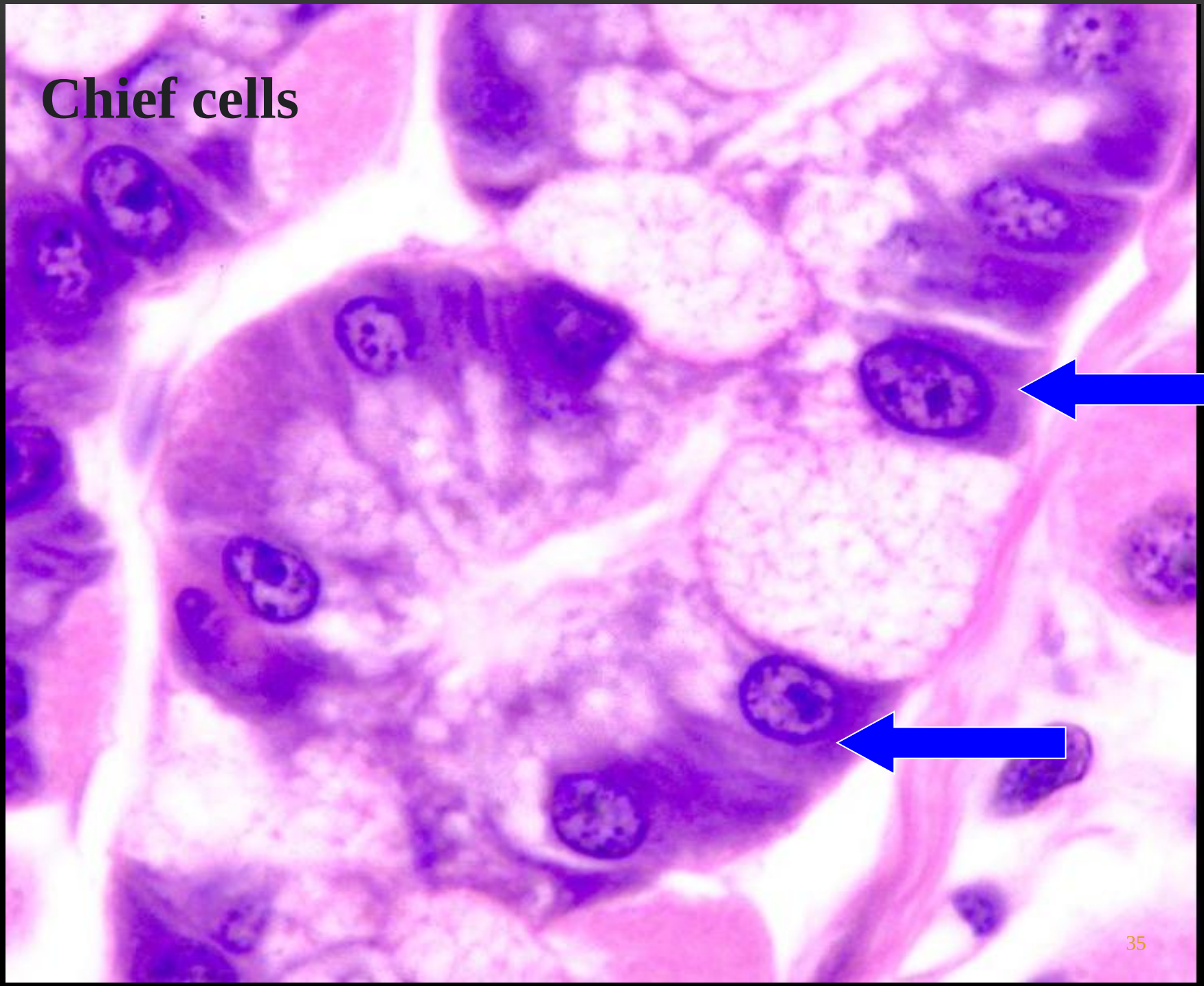


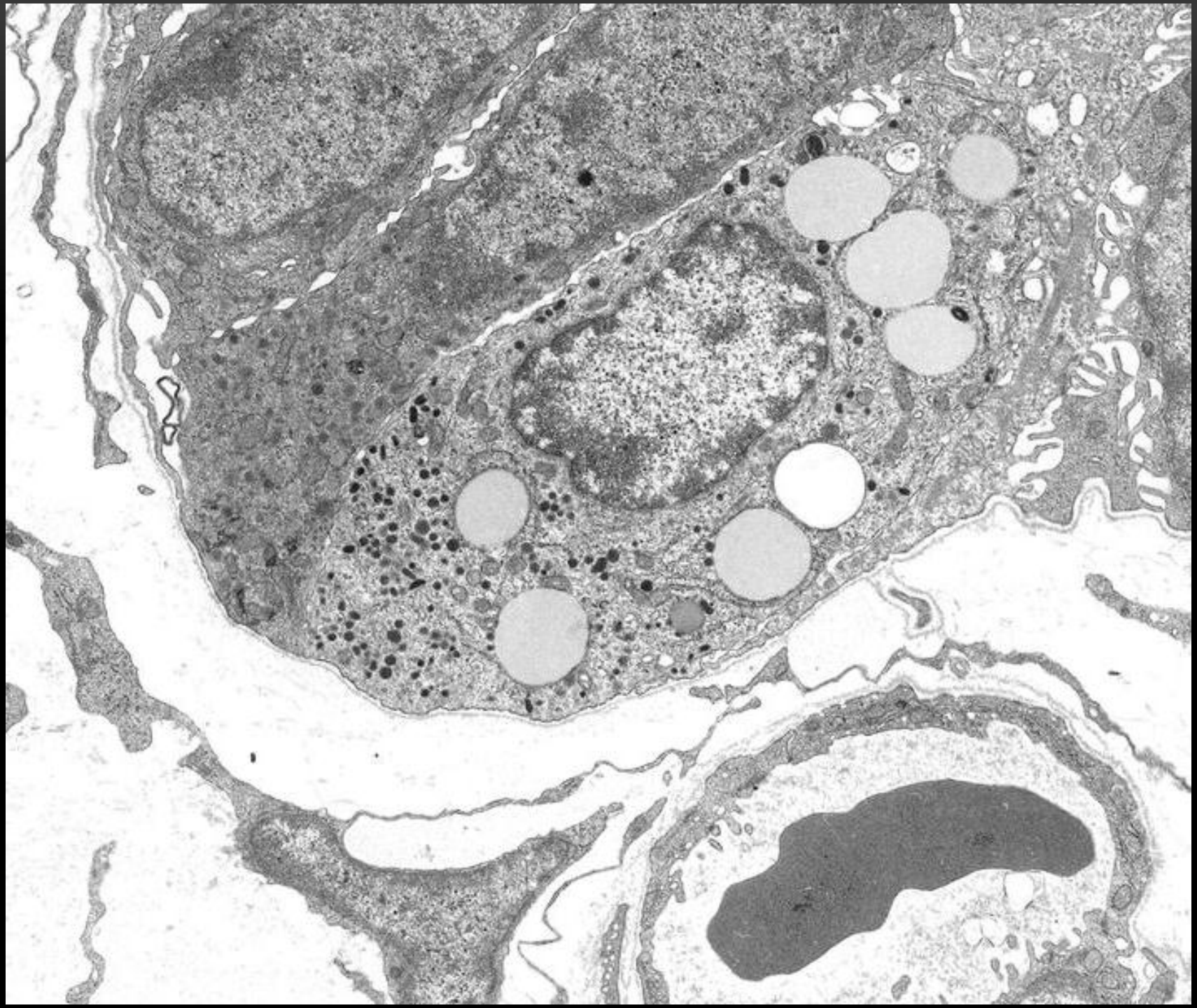


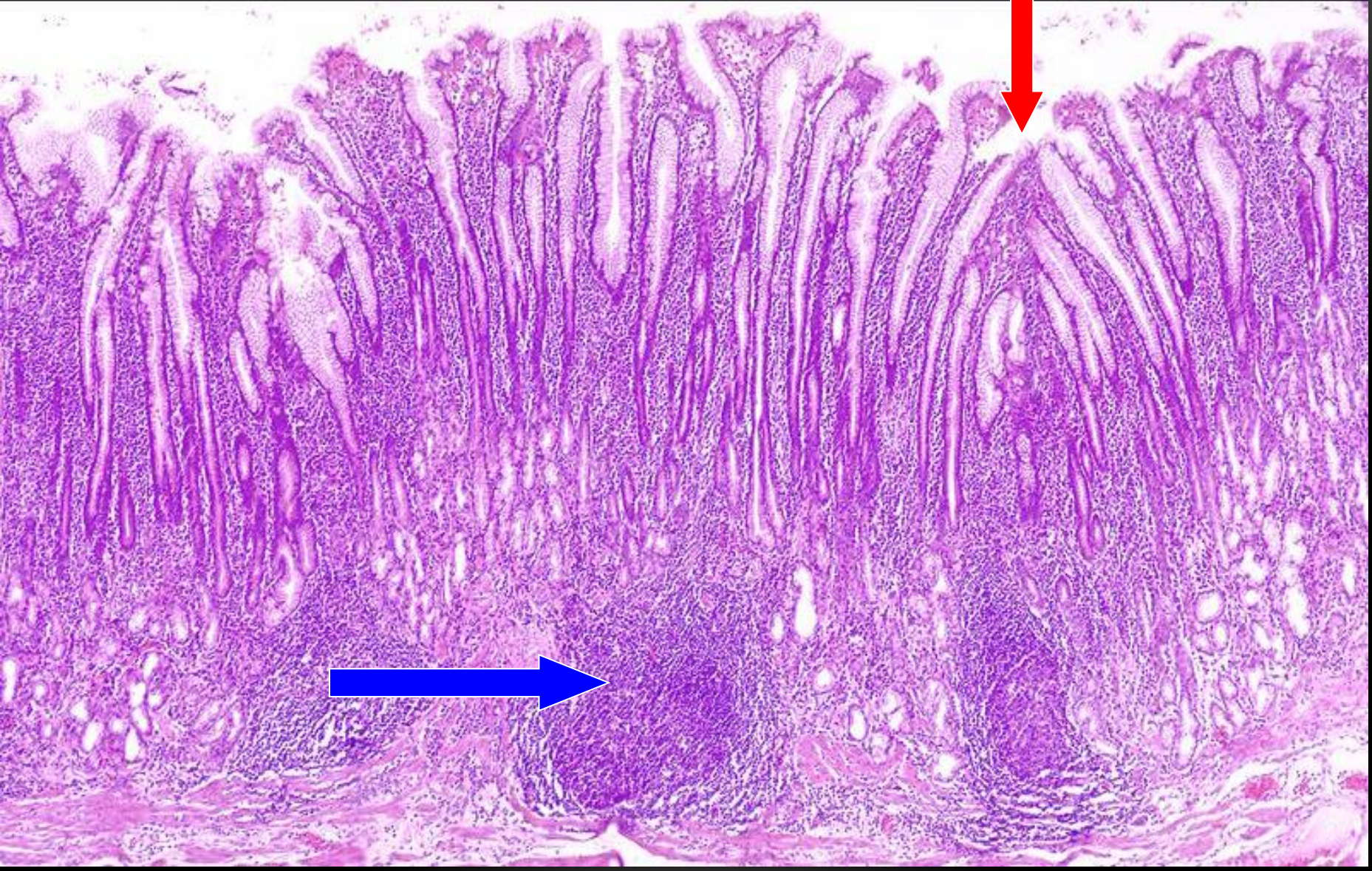
Resting Parietal Cell



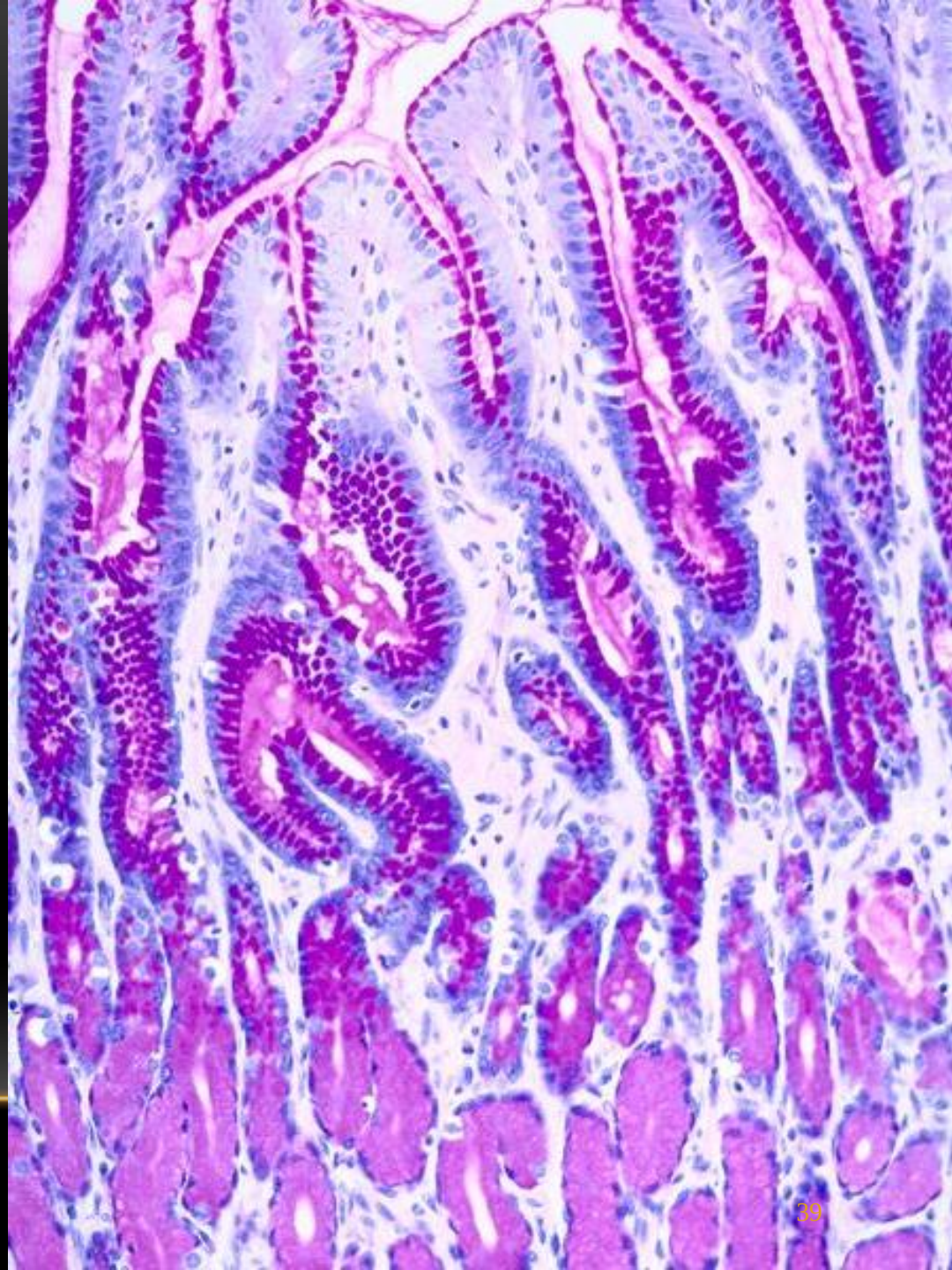
Chief cells







Pyloric antral mucosa

Pyloric antrum

PAS stain of the antrum
Mucous cells in the pits stain darker than those in the glands