

DEVELOPMENT OF GASTROINTESTINAL SYSTEM

GI DEVELOPMENT - FOLDING LONGITUDINAL

ROSTRAL

CAUDAL

Future heart

Body stalk

Yolk sac

Allantois

Endoderm

Approx. 21 days

Approx. 28 days

Midgut

Hindgut

Foregut

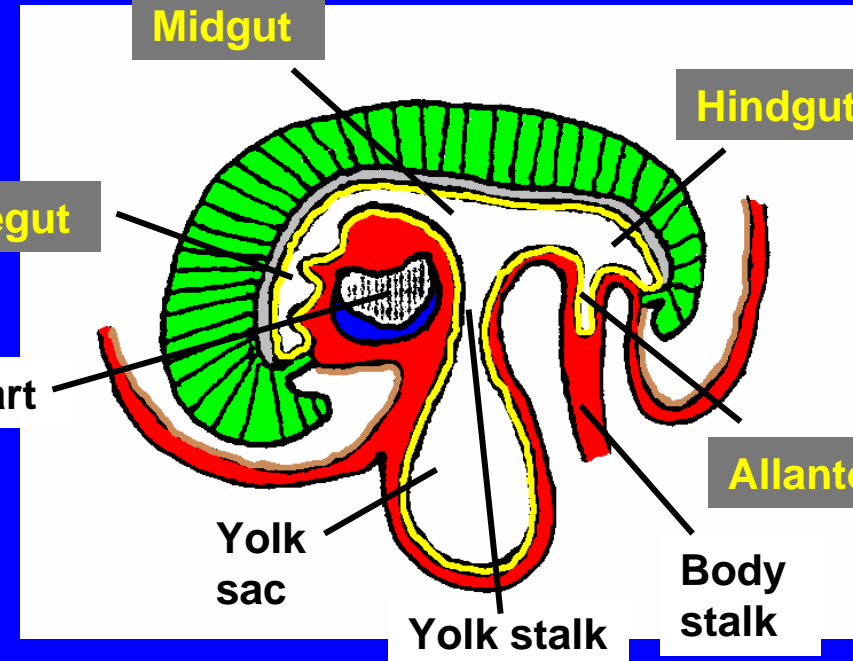
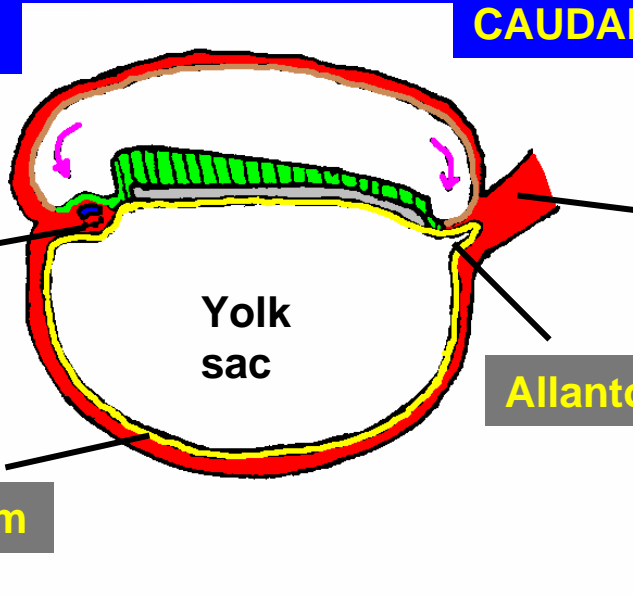
Heart

Allantois

Yolk sac

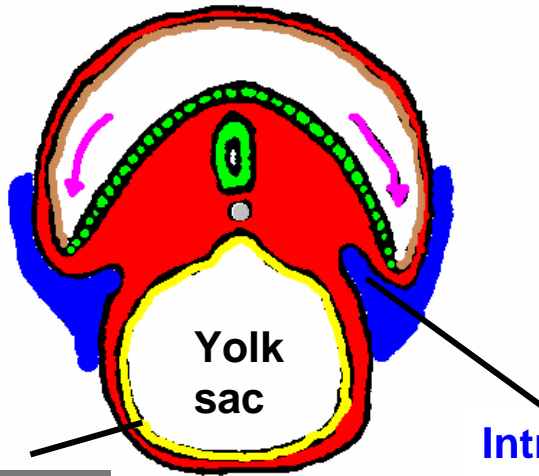
Yolk stalk

Body stalk



GI DEVELOPMENT - FOLDING TRANSVERSE

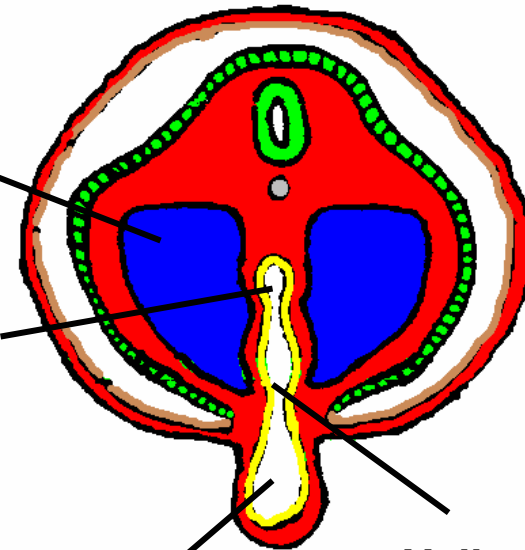
Approx. 21 days



Endoderm

Intraembryonic
coelom

Approx. 26 days



Midgut

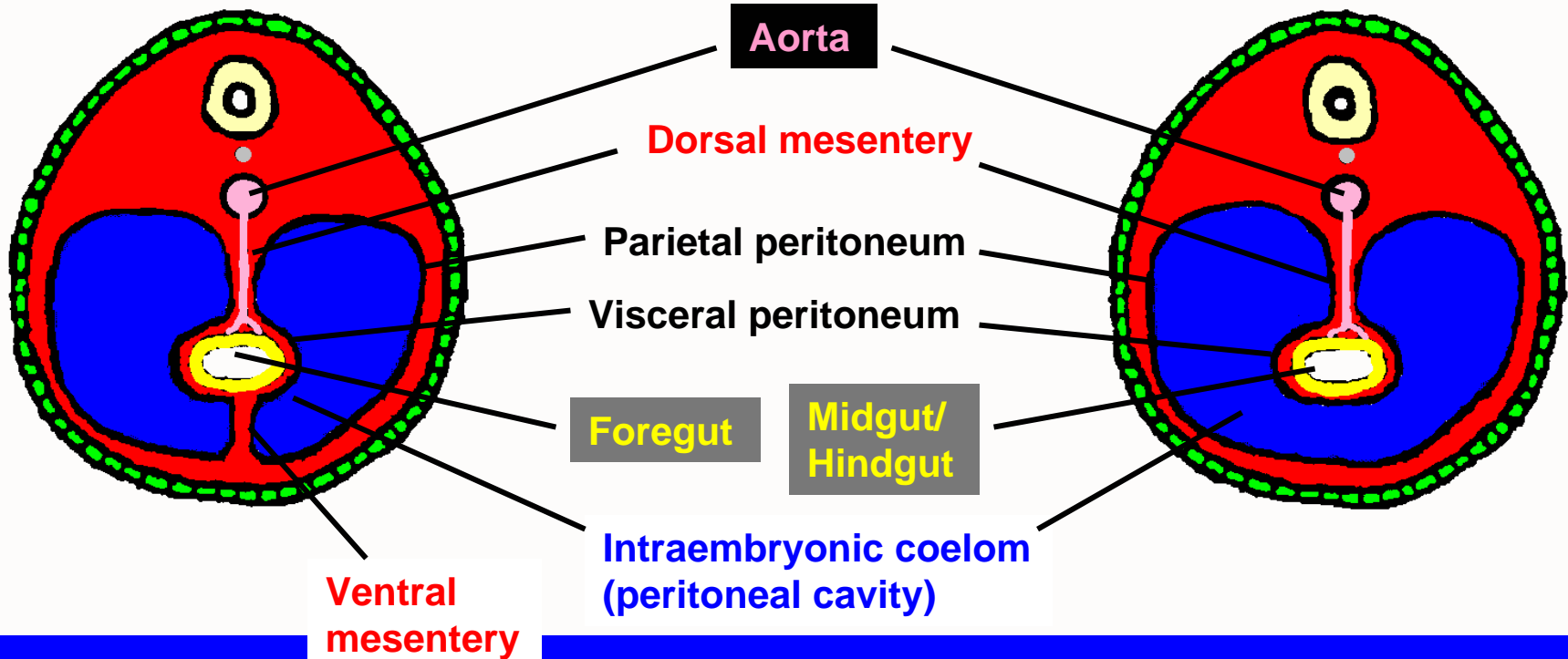
Yolk
sac

Yolk stalk

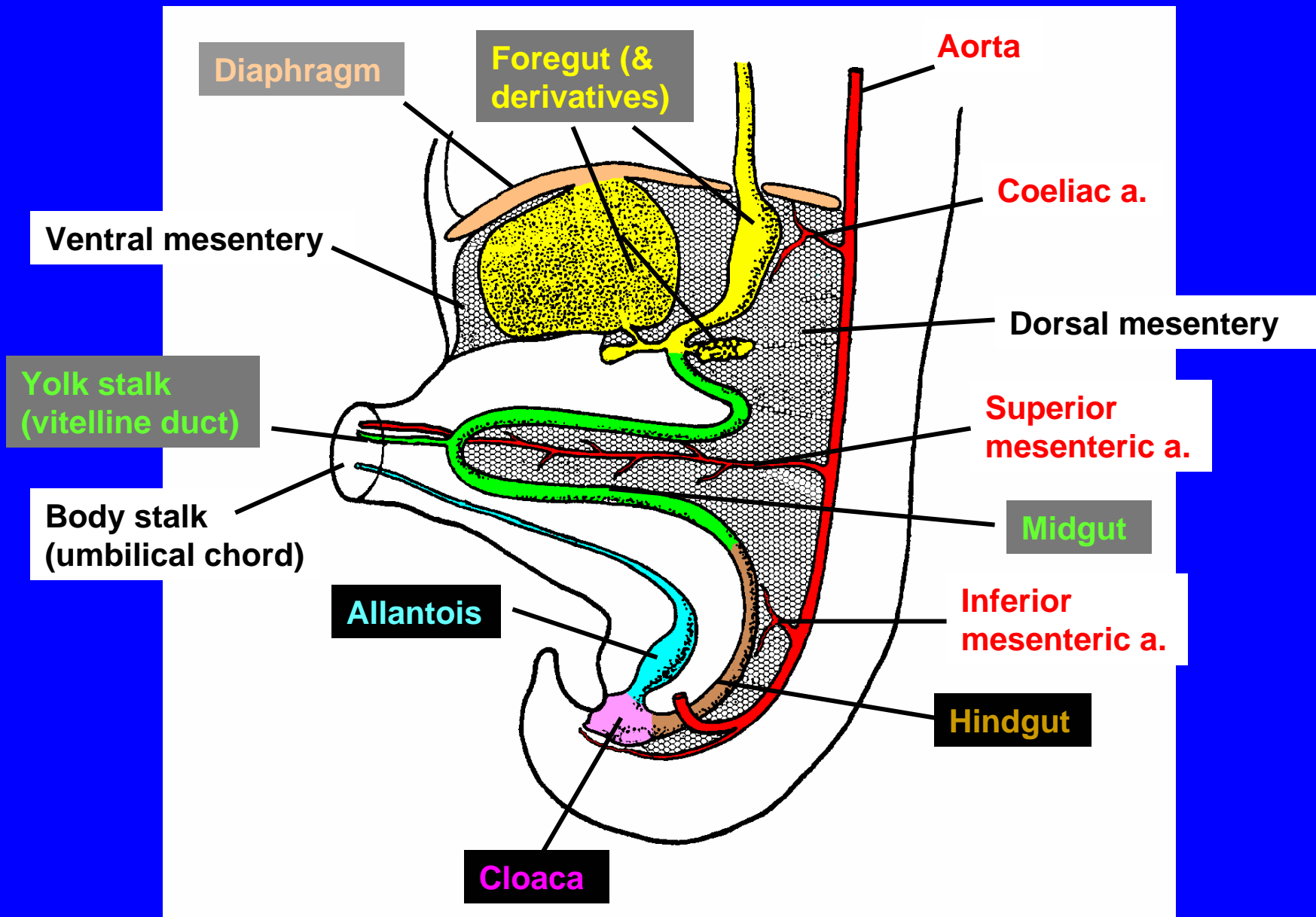
GI DEVELOPMENT - MESENTERIES

TRANSVERSE SECTION

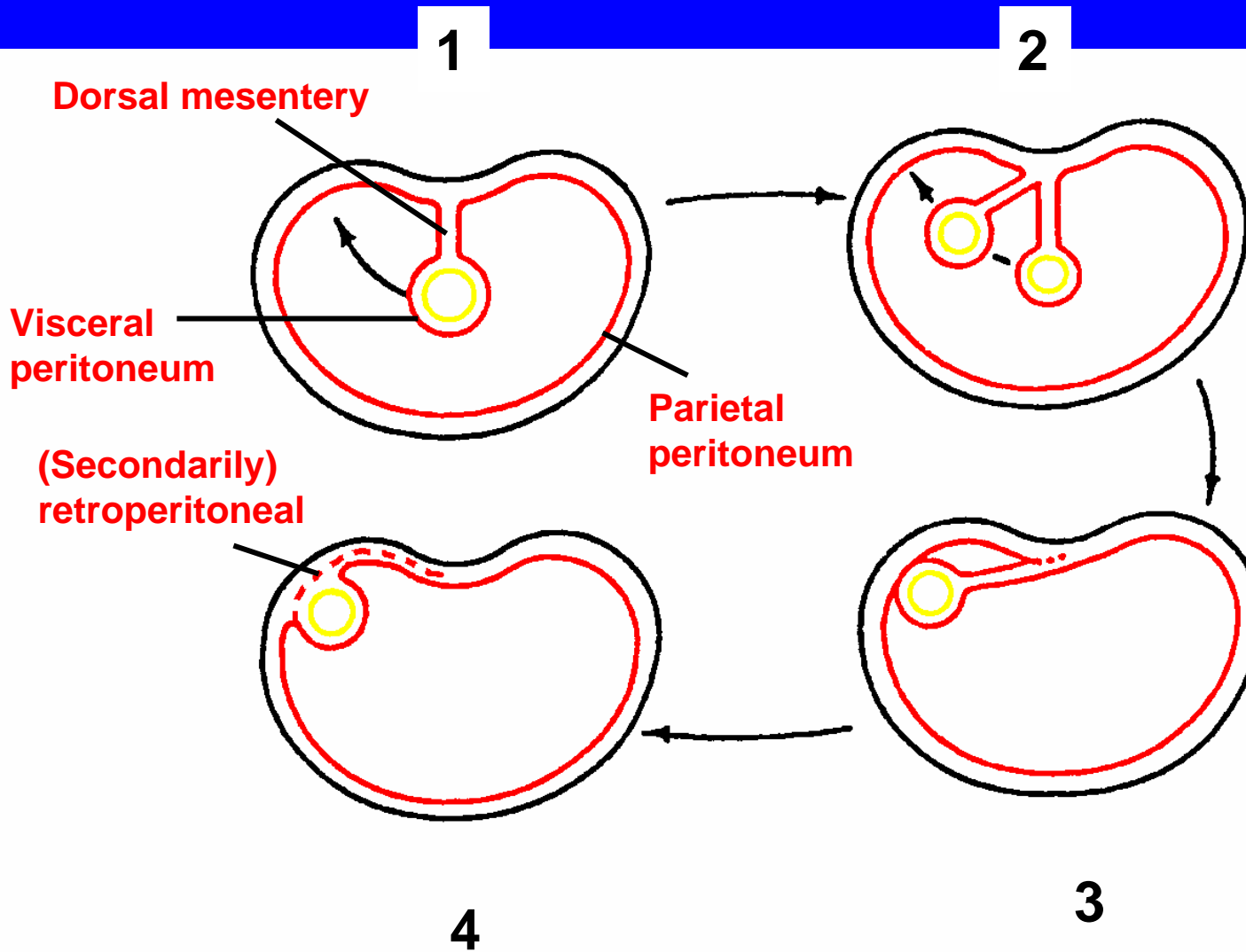
Approx. 28 days



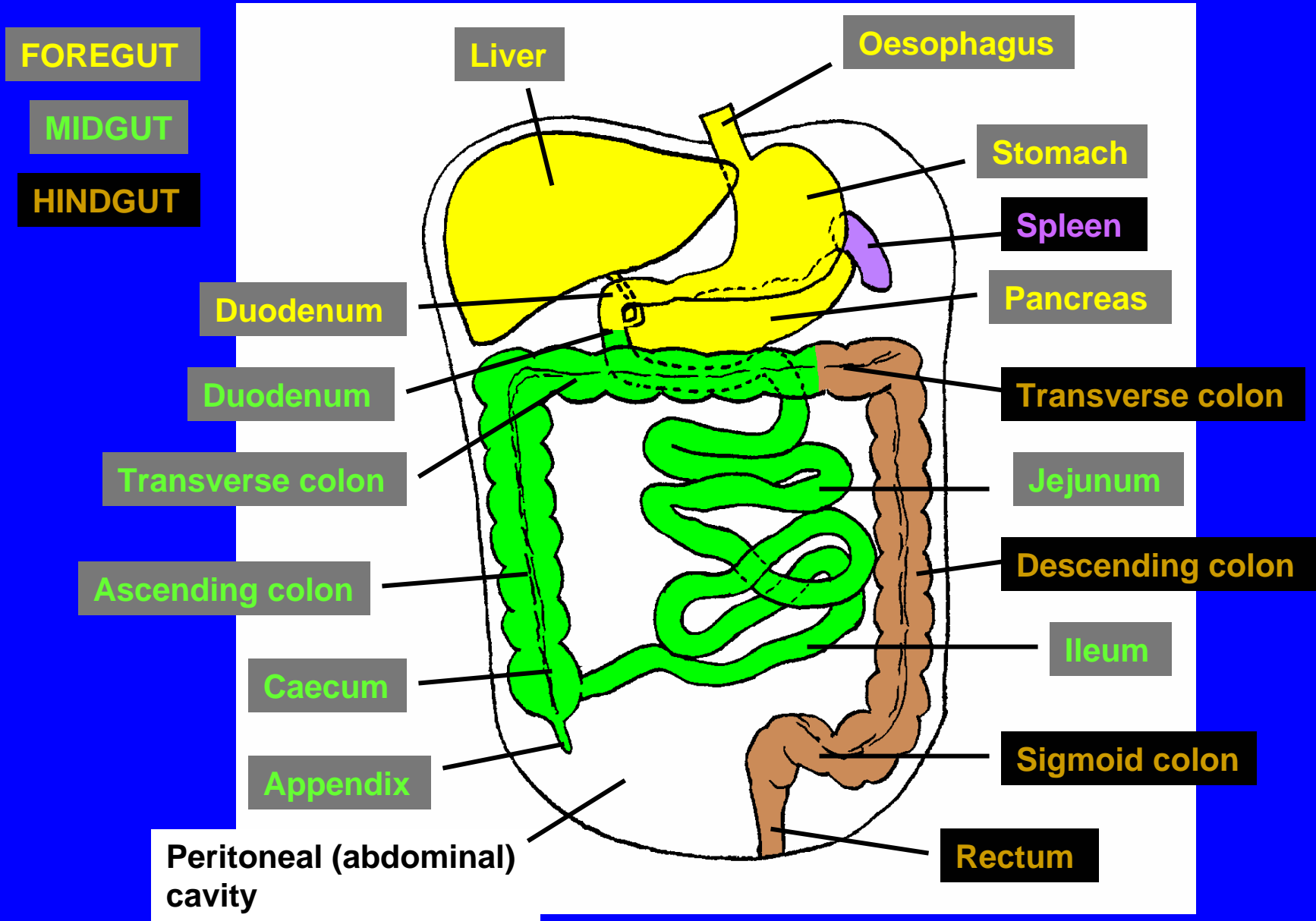
PRIMITIVE GUT TUBE - SCHEMATIC



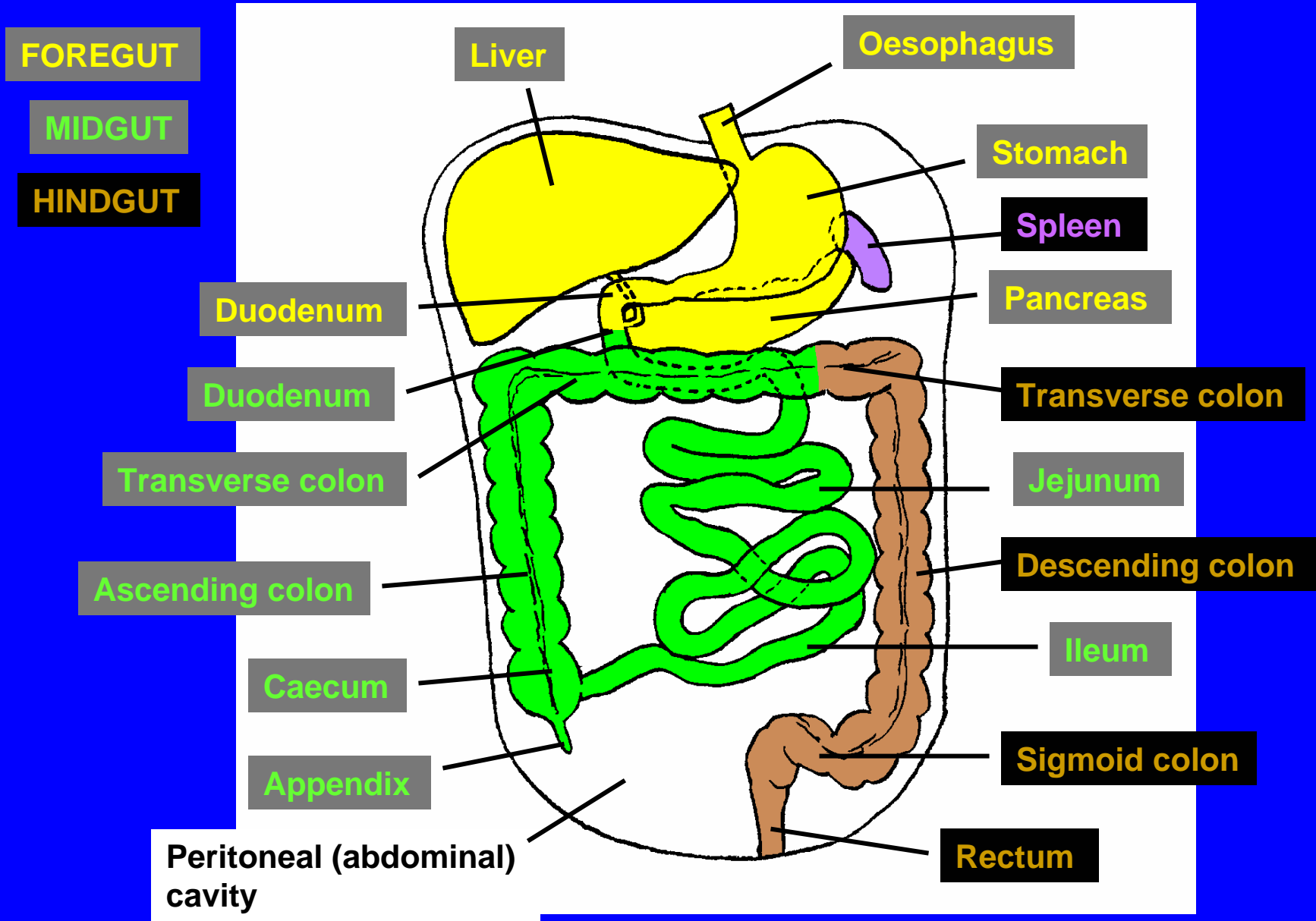
FATE OF MESENTERIES - ZYGOSIS



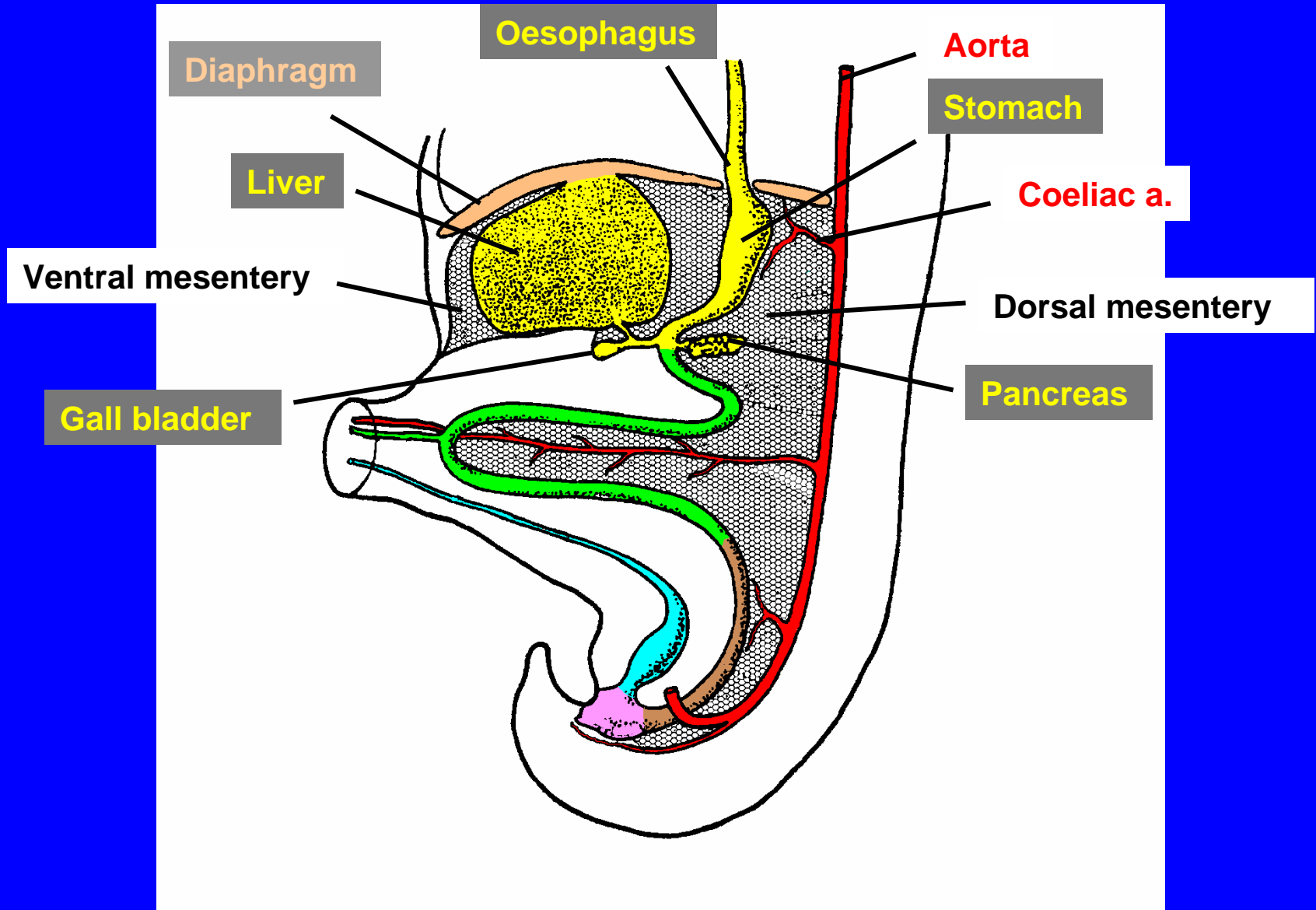
DERIVATIVES OF PRIMITIVE GUT TUBE



DERIVATIVES OF PRIMITIVE GUT TUBE

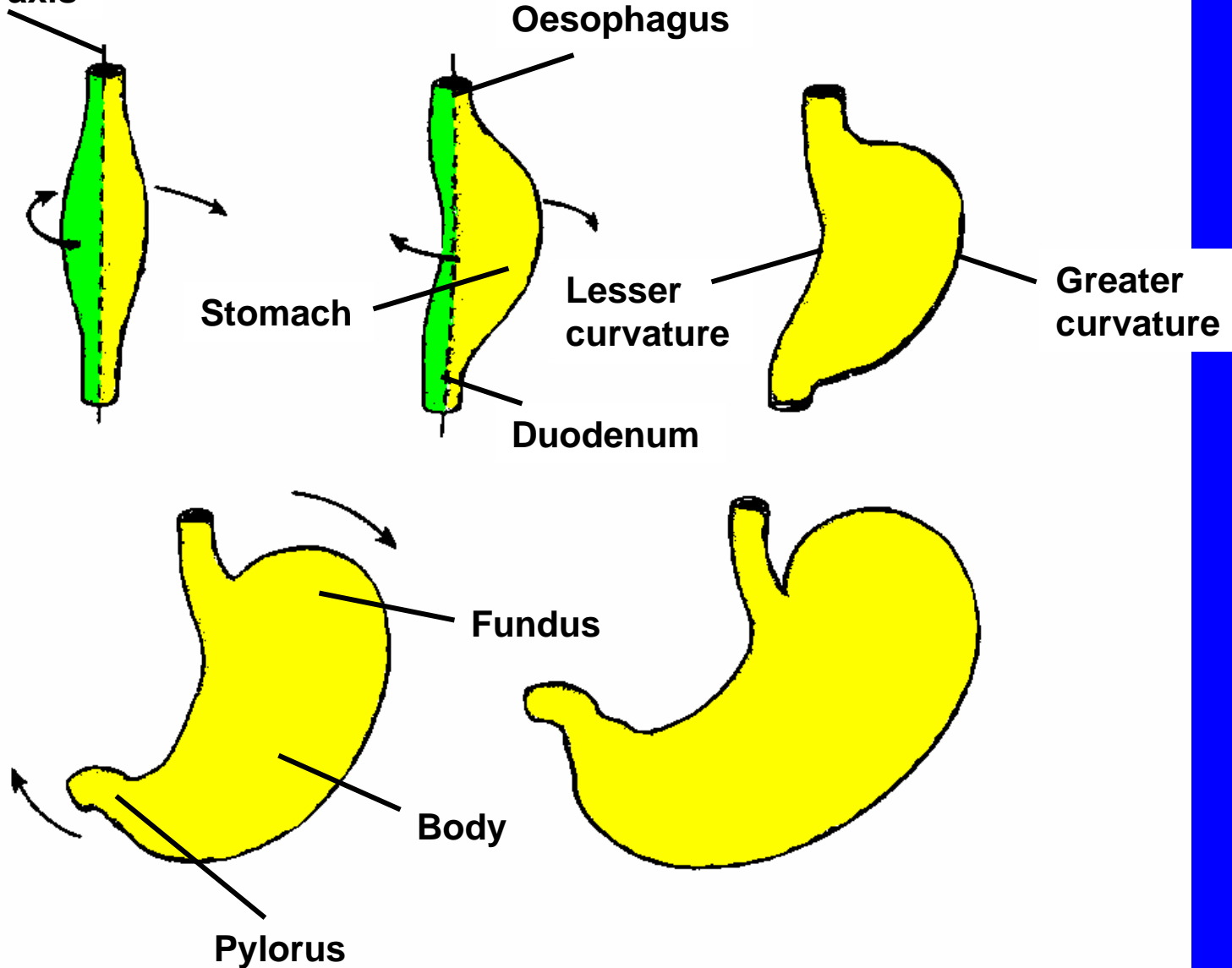


DERIVATIVES OF FOREGUT

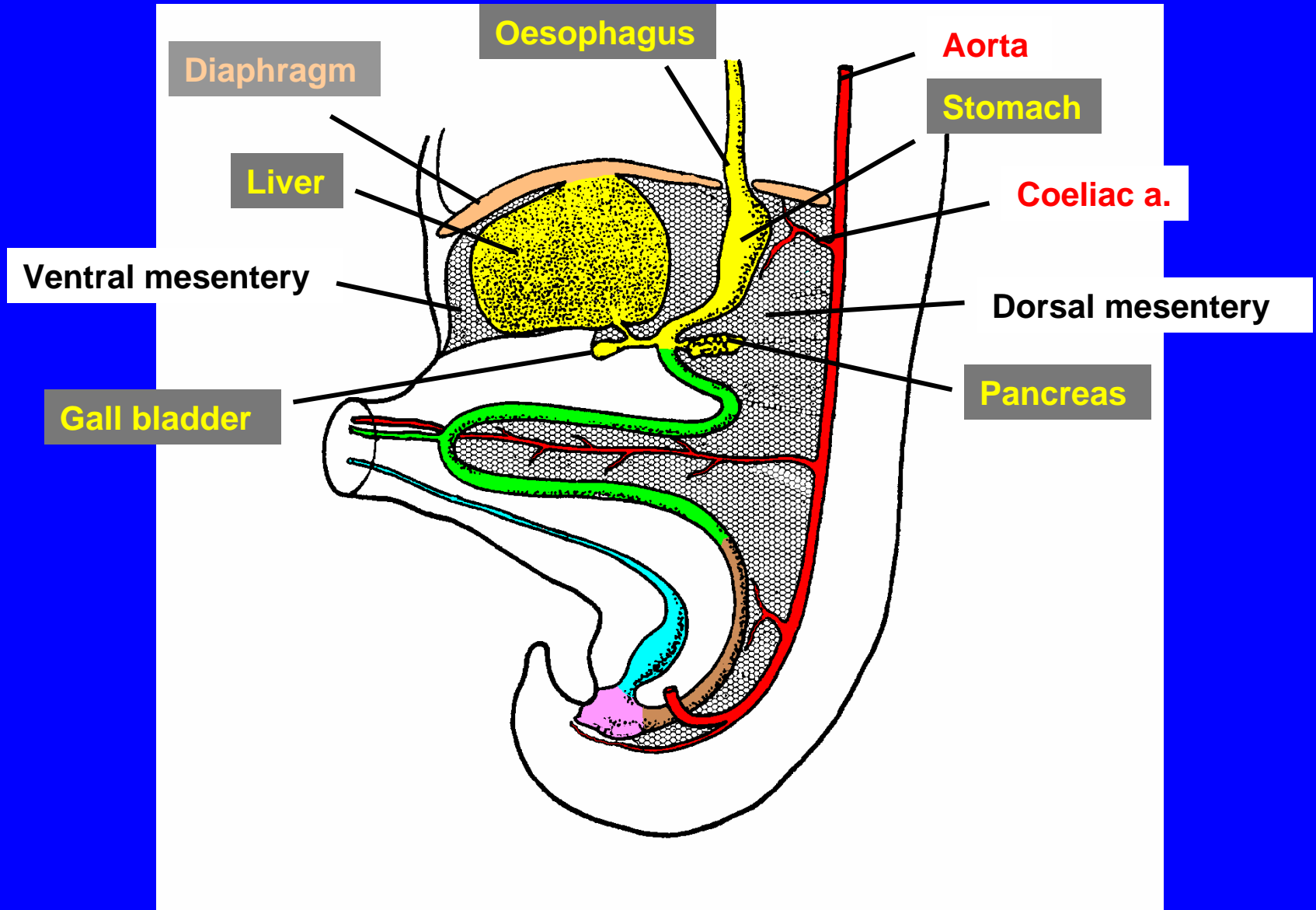


DERIVATIVES OF FOREGUT - STOMACH

Longitudinal axis



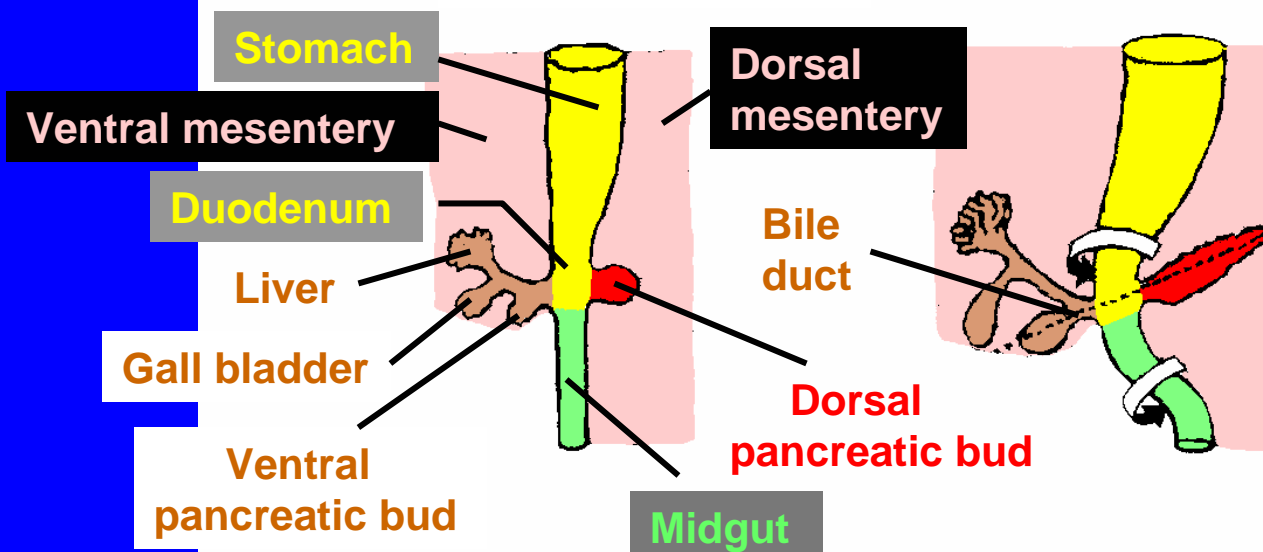
DERIVATIVES OF FOREGUT LIVER, GALL BLADDER & BILE DUCT



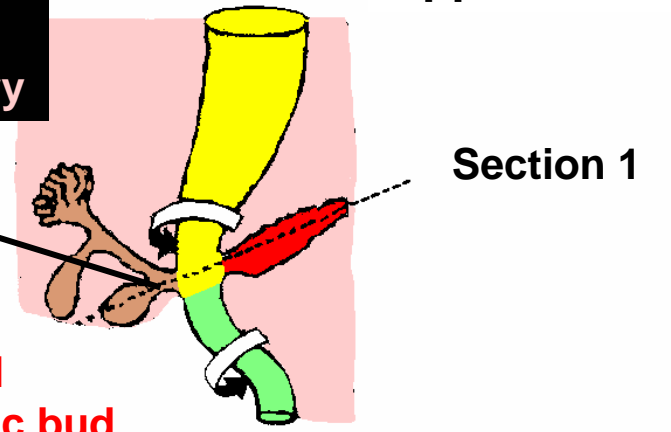
DERIVATIVES OF FOREGUT

LIVER, PANCREAS GALL, BLADDER & BILE DUCT

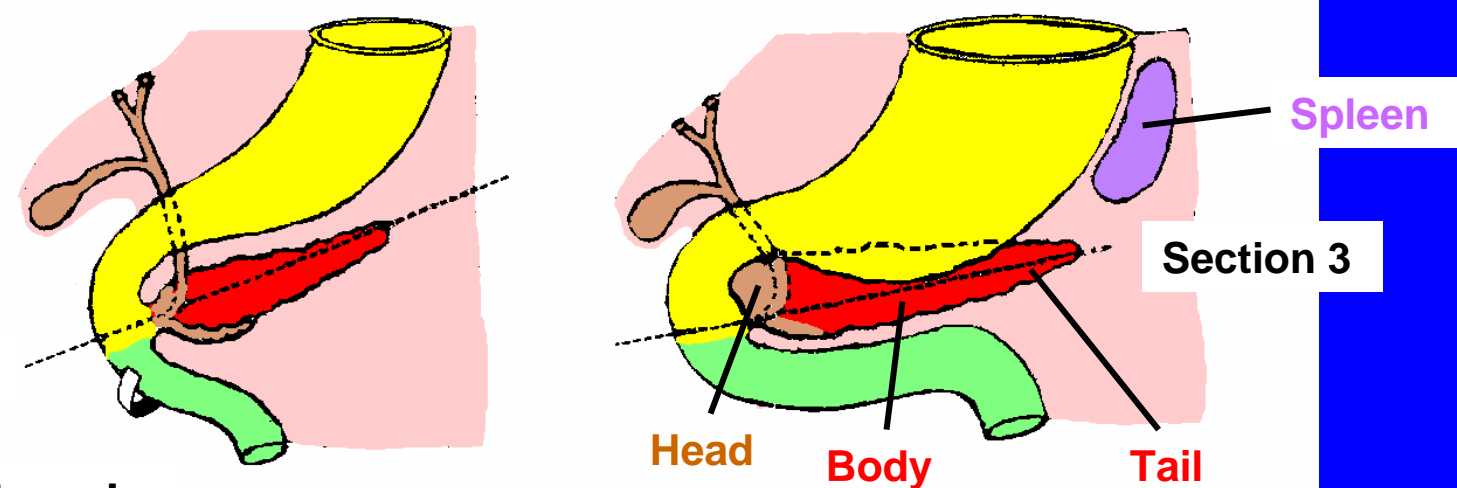
Approx. 4 weeks



Approx. 5 weeks



Approx. 8 weeks



Approx. 6-7 weeks

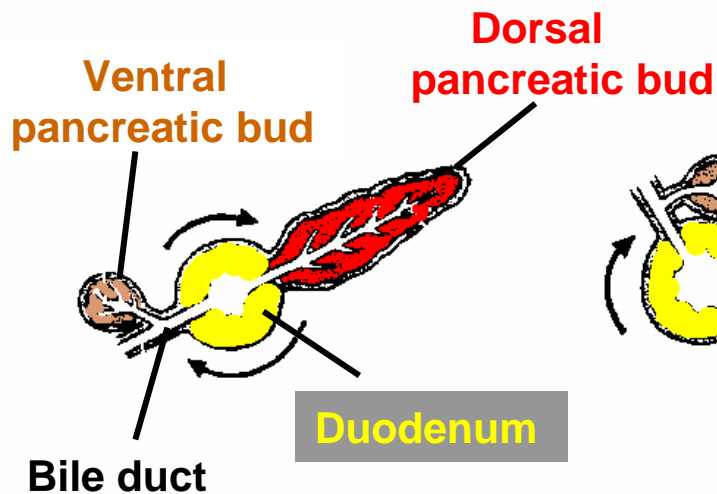
Section 2

Section 3

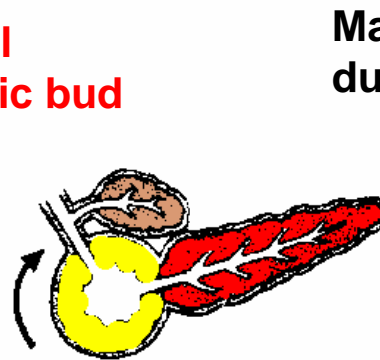
Head Body Tail

DERIVATIVES OF FOREGUT - PANCREAS

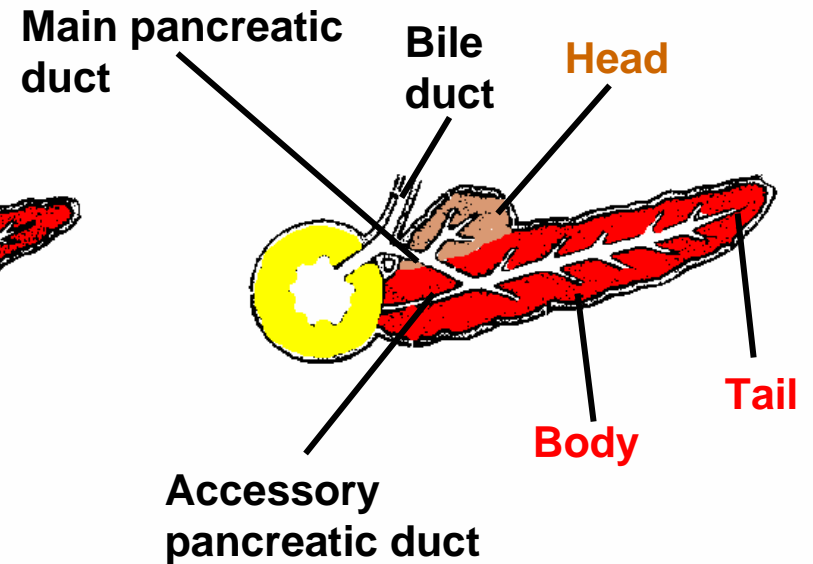
Section 1



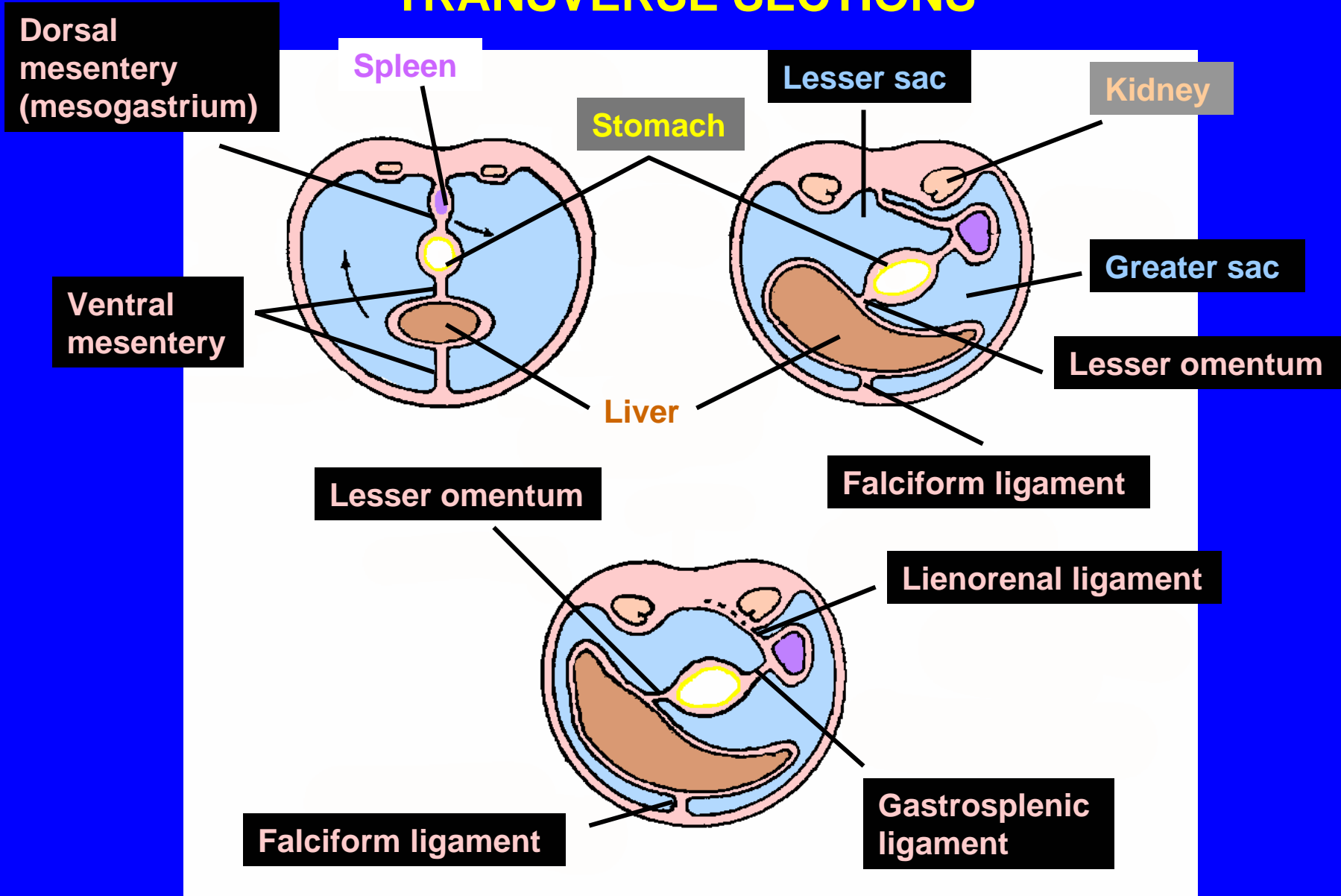
Section 2



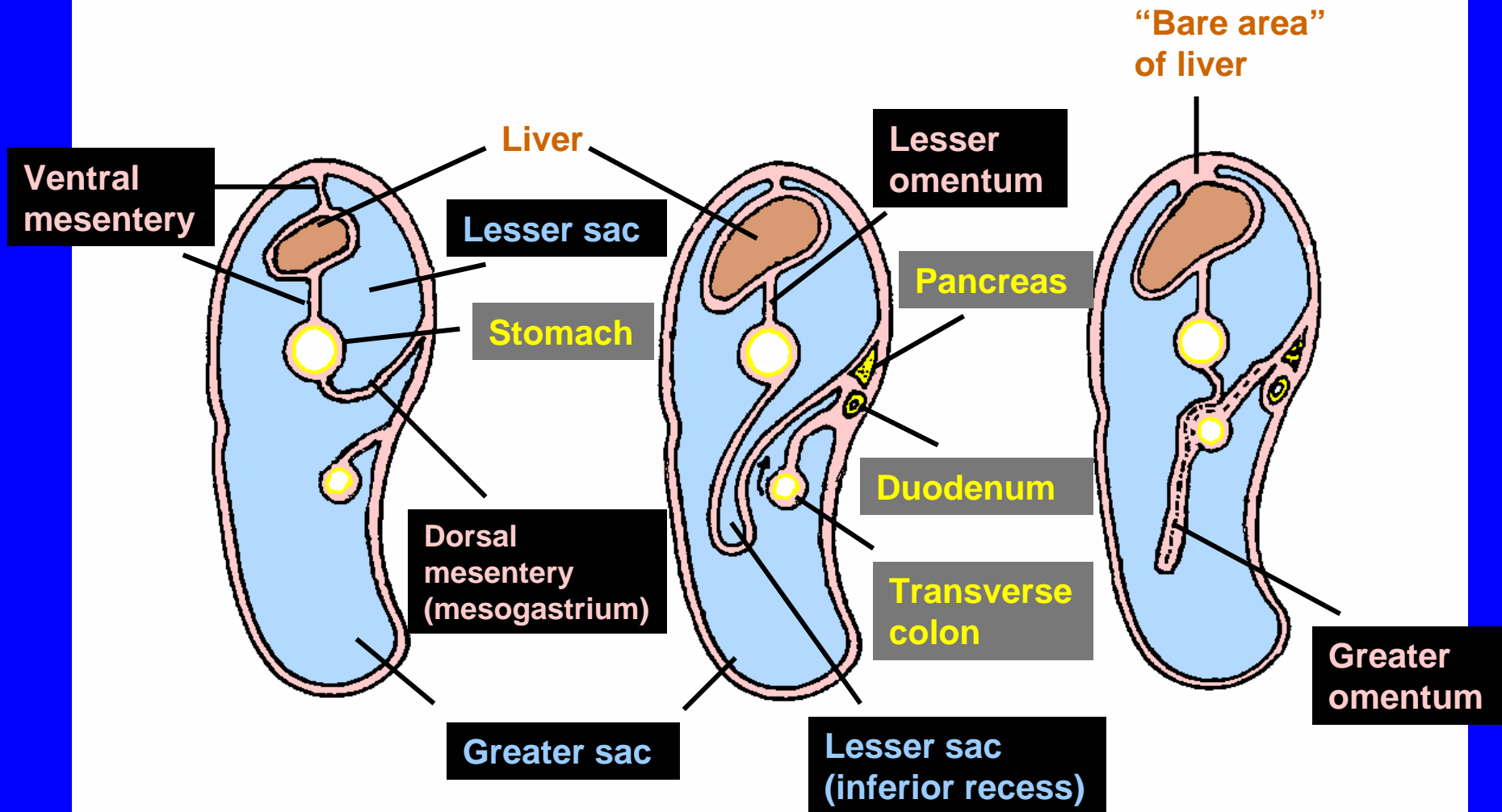
Section 3



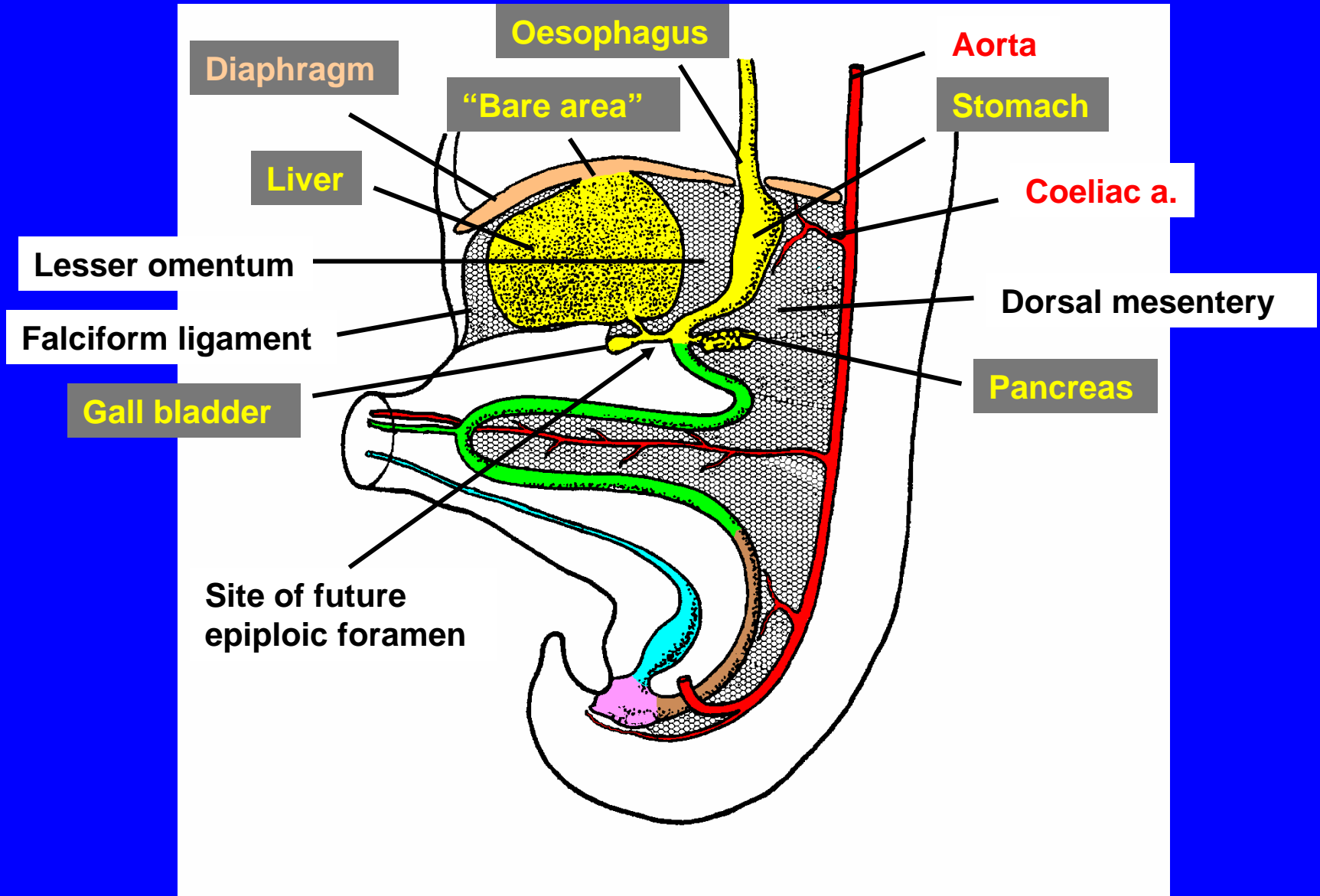
FATE OF MESENTERIES – FOREGUT TRANSVERSE SECTIONS



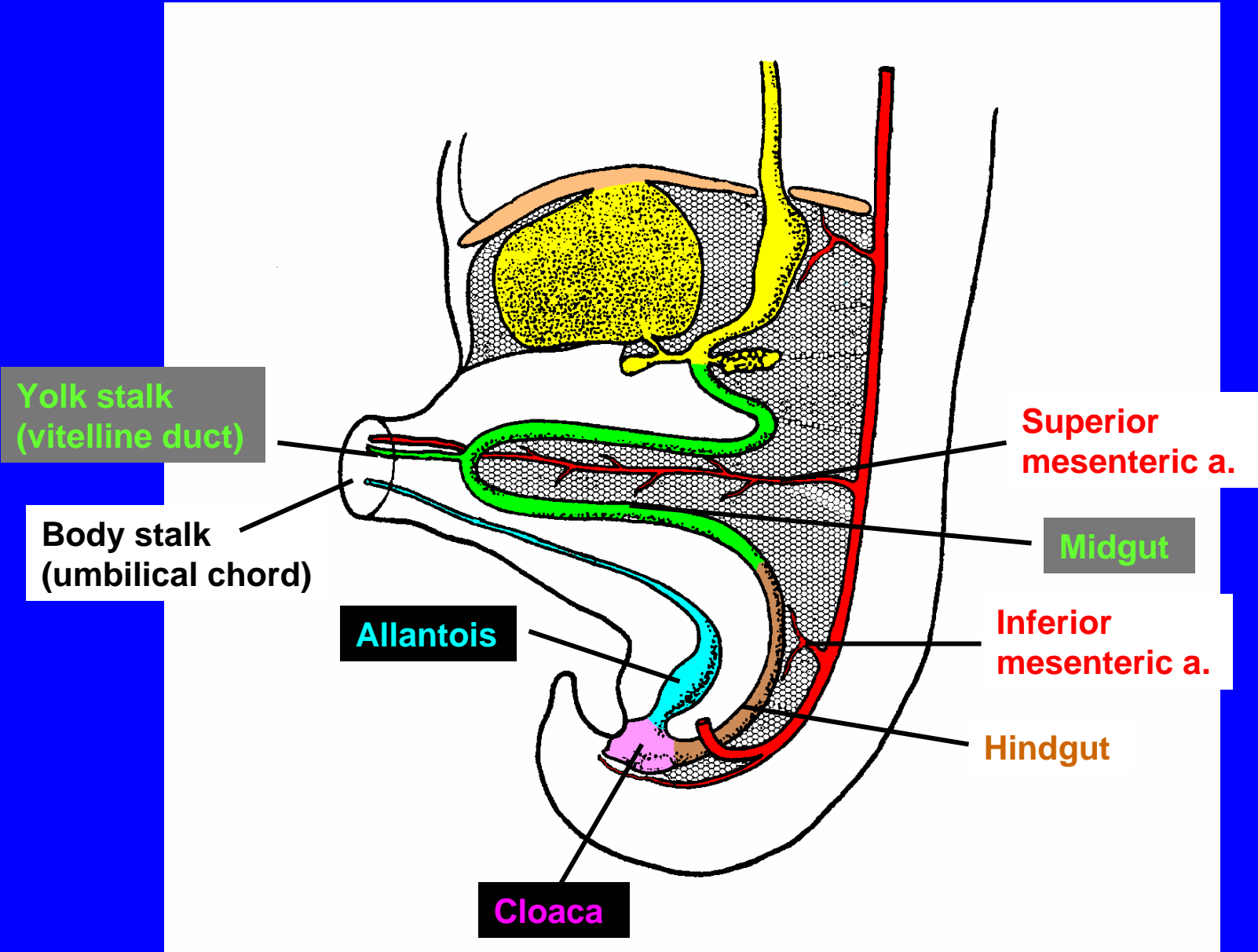
FATE OF MESENTERIES – FOREGUT SAGITTAL SECTIONS



DERIVATIVES OF FOREGUT LIVER, GALL BLADDER & BILE DUCT



MIDGUT, HINDGUT & CLOACA - SCHEMATIC



DEVELOPMENT OF MIDGUT LOOP

Approx. 5 weeks

Approx. 7 weeks

Proximal limb

Midgut loop

Distal limb

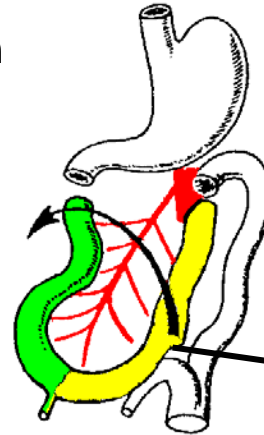
Vitelline duct

Superior mesenteric a.

Stomach

Hindgut

Allantois



Caecal bud

Duodenum

Transverse colon

Caecum

Ileum

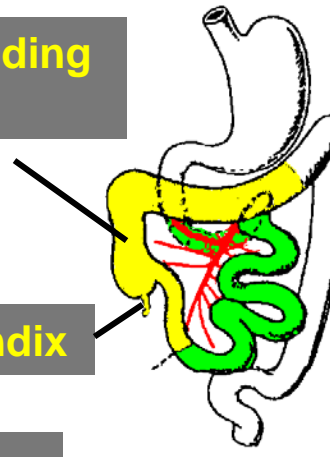
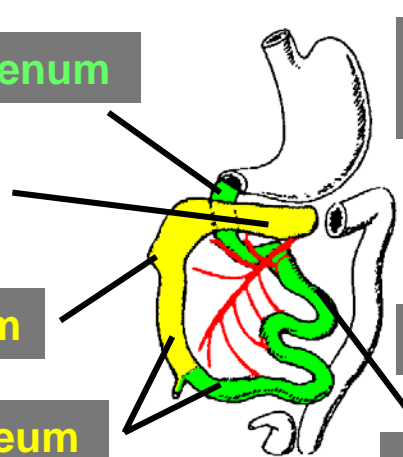
Ascending colon

Appendix

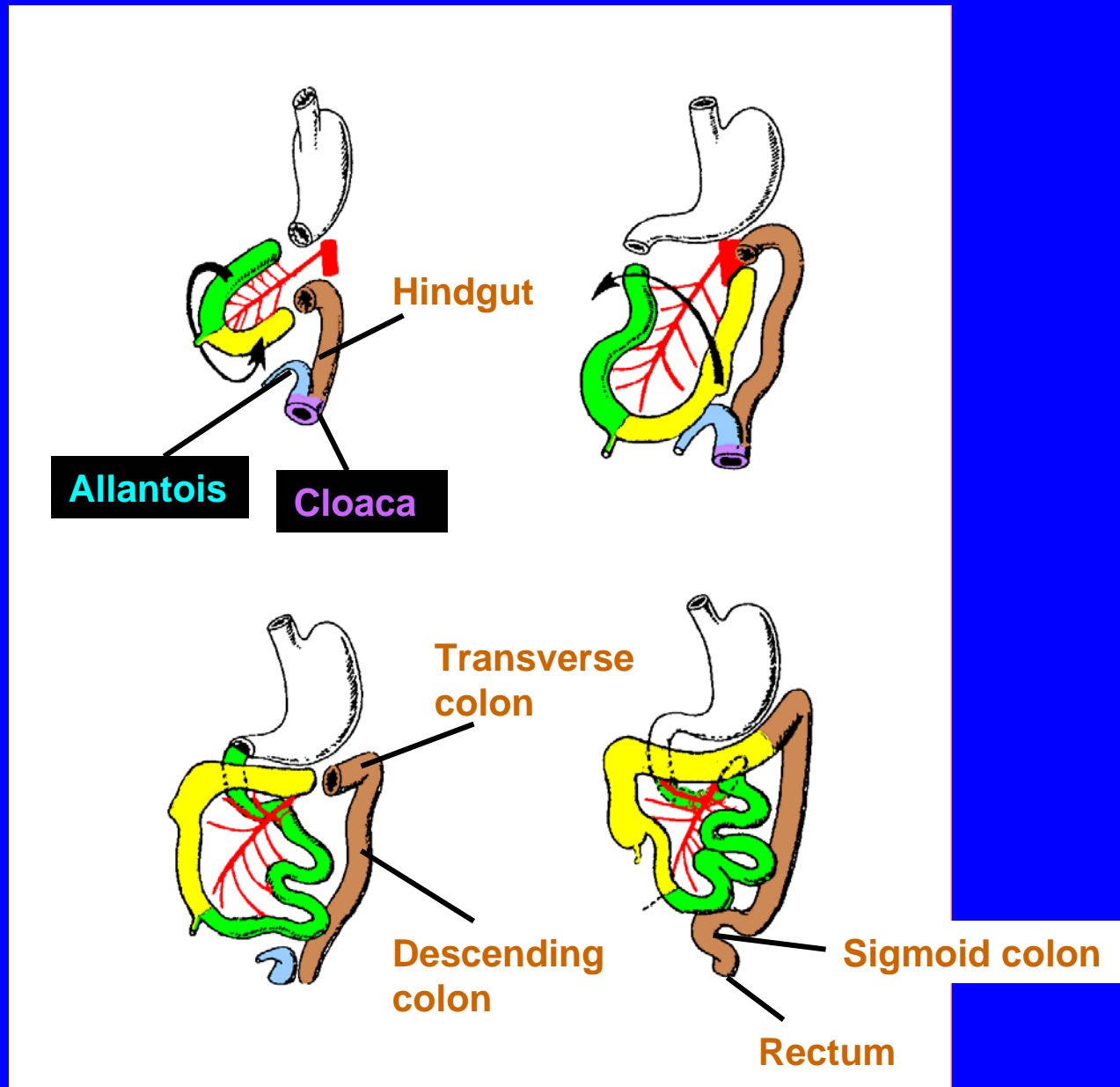
Jejunum

Approx. 10 weeks

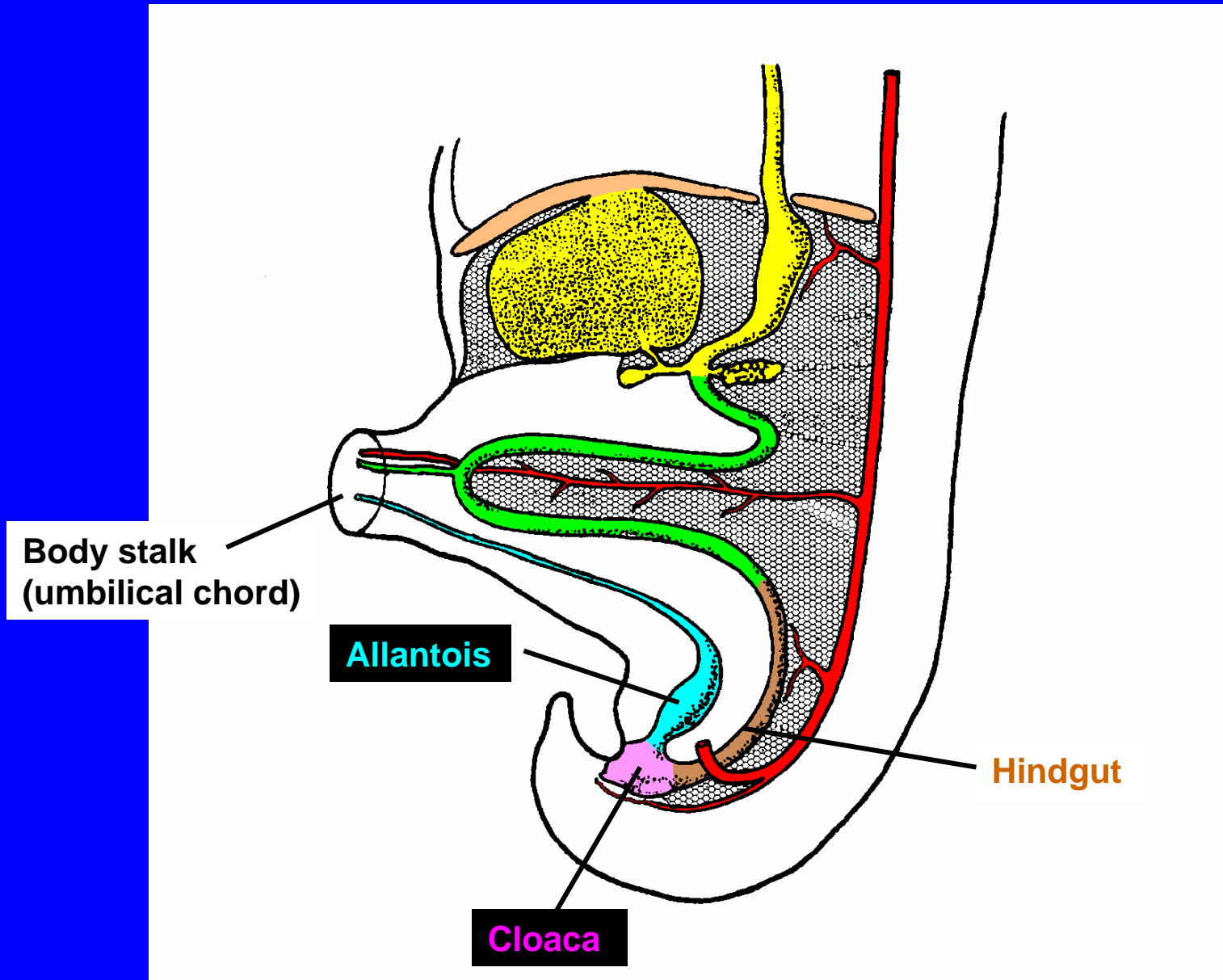
Approx. 11 weeks



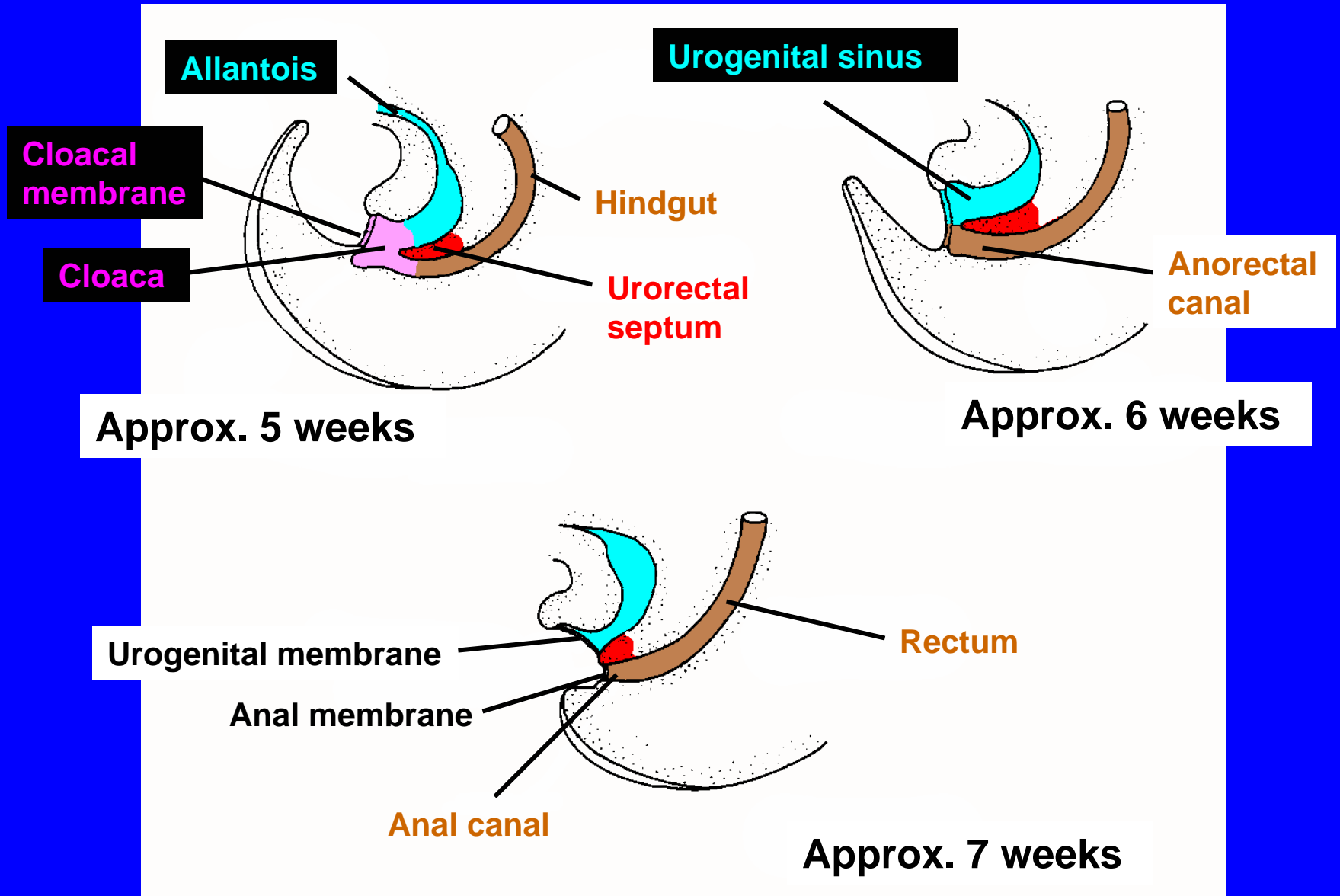
DEVELOPMENT OF HINDGUT



CLOACA - SCHEMATIC



PARTITIONING OF CLOACA SAGITTAL SECTIONS



MESENTERIES OF MIDGUT & HINDGUT

