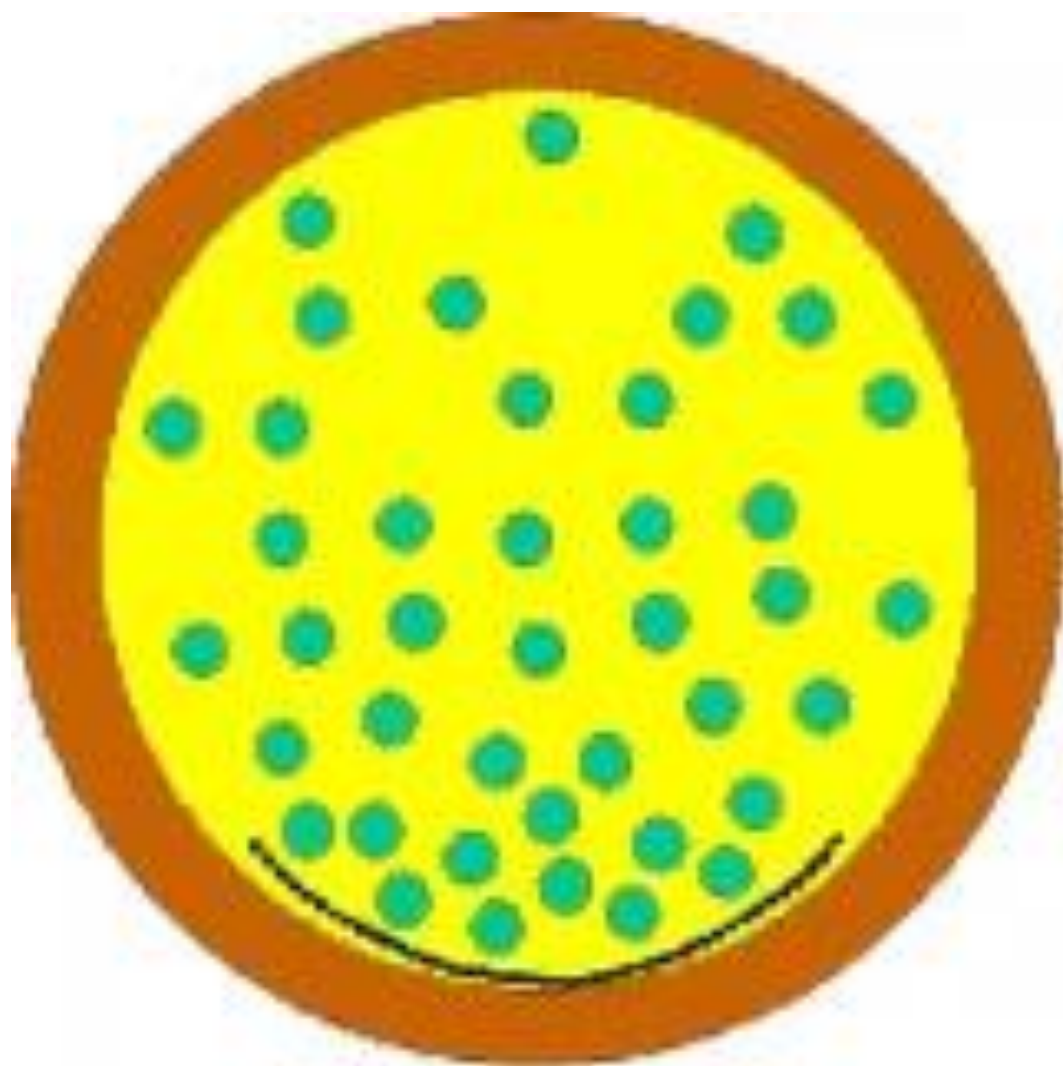
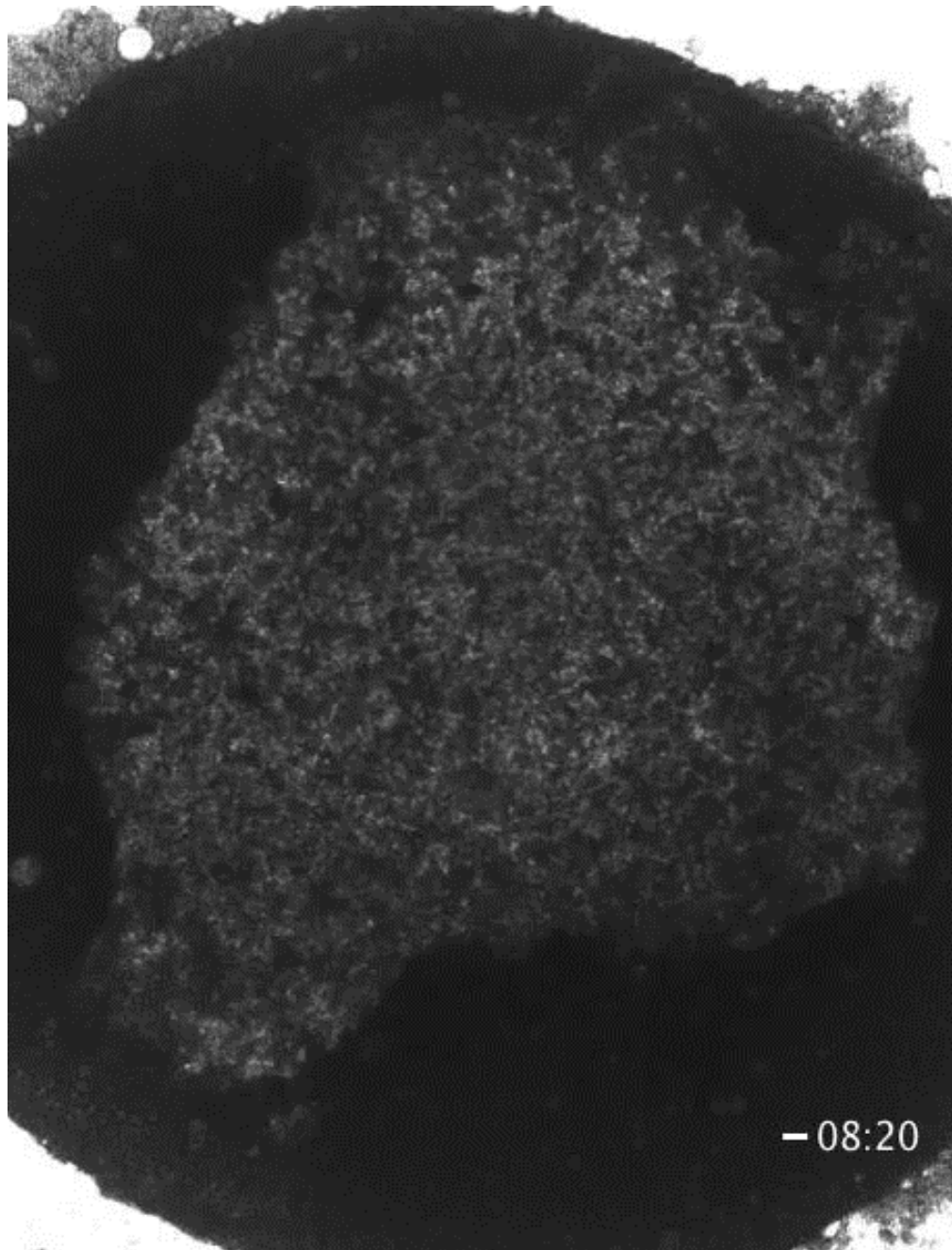




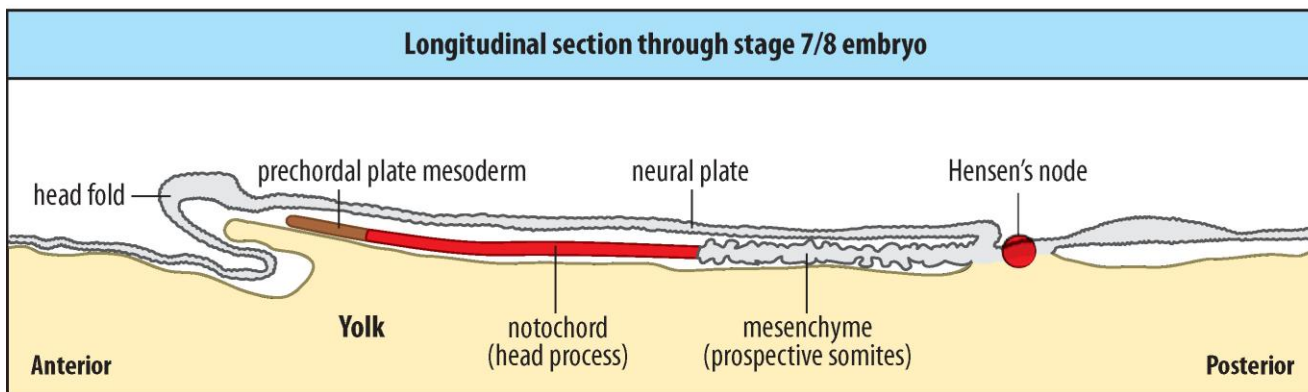
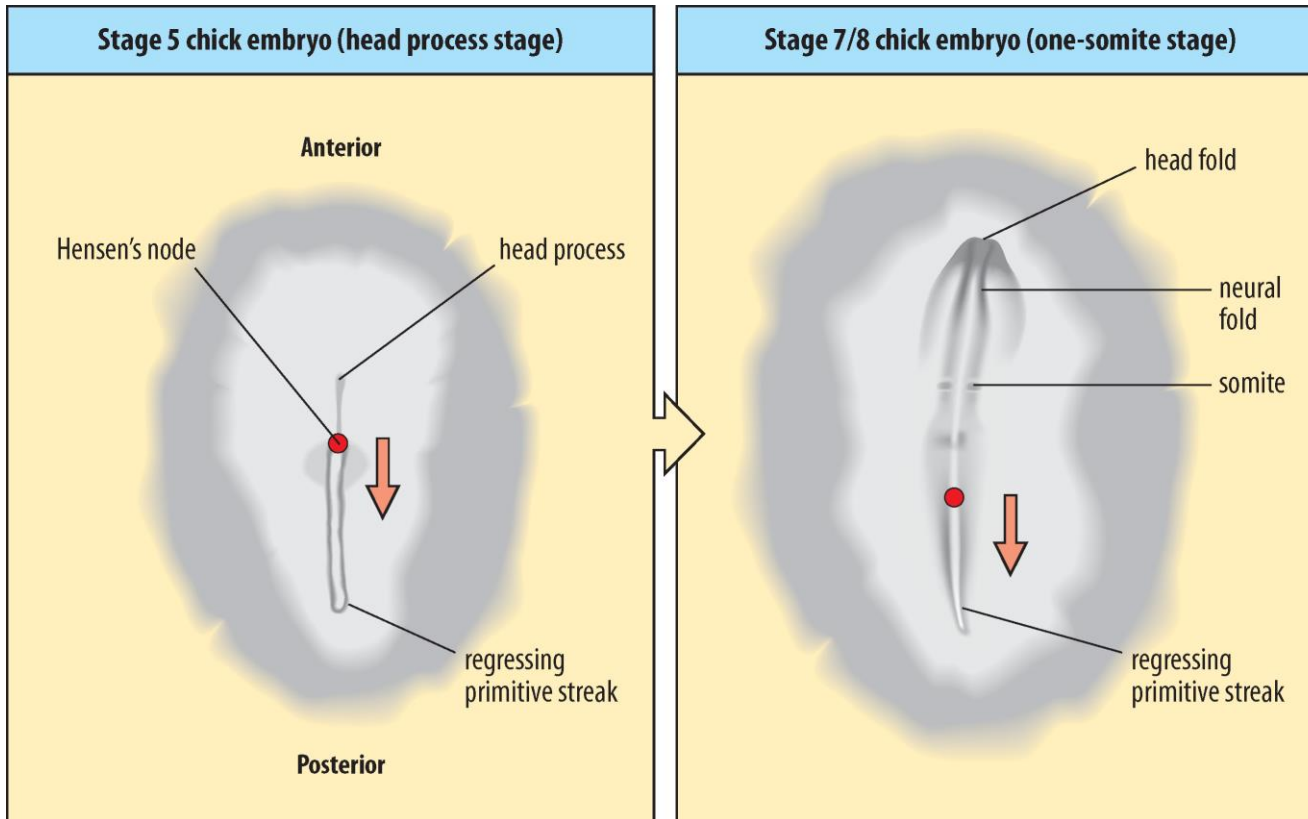
UNIT 3

ANIMAL LIFE





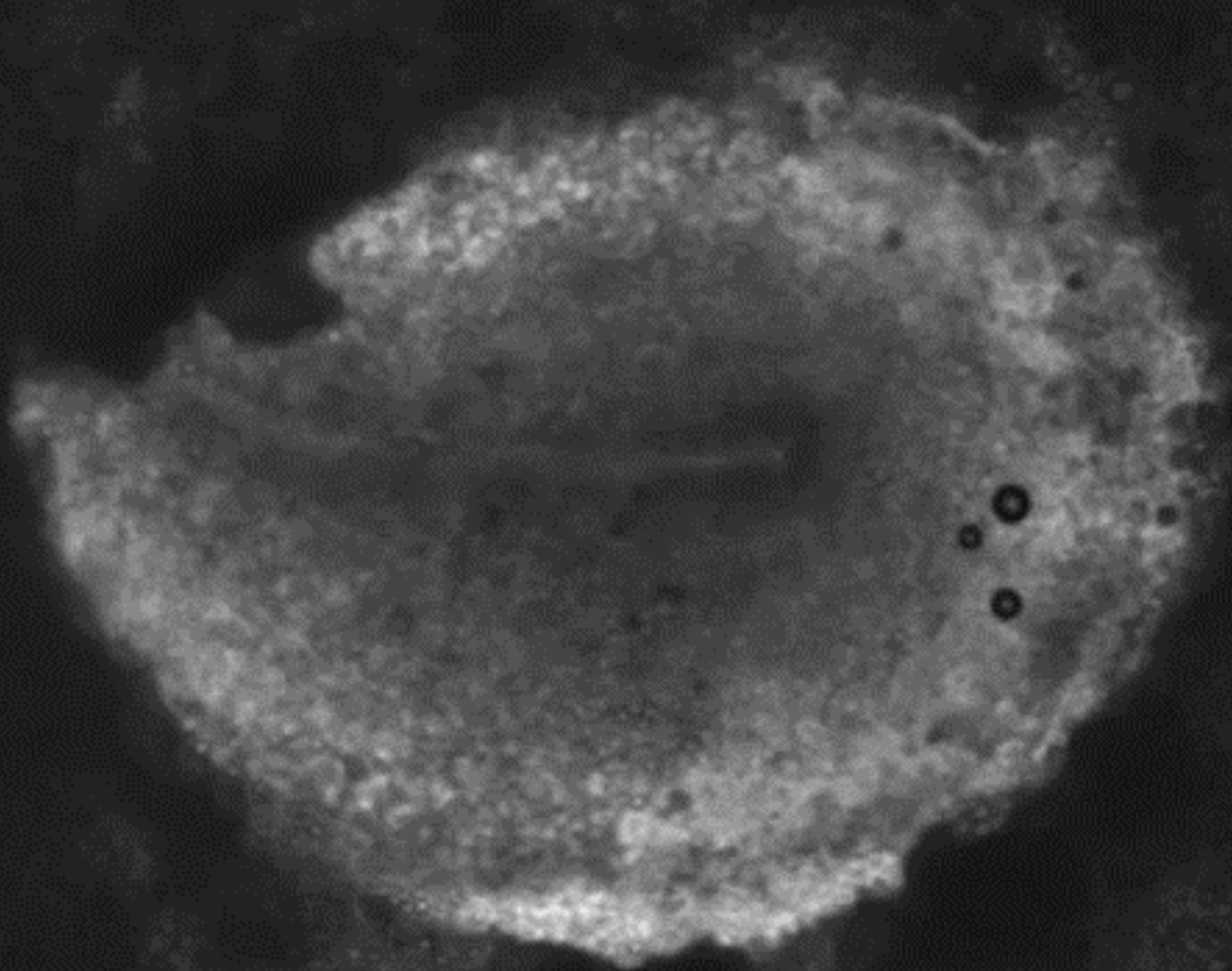
- 08:20



Chicken Embryo - Somitogenesis

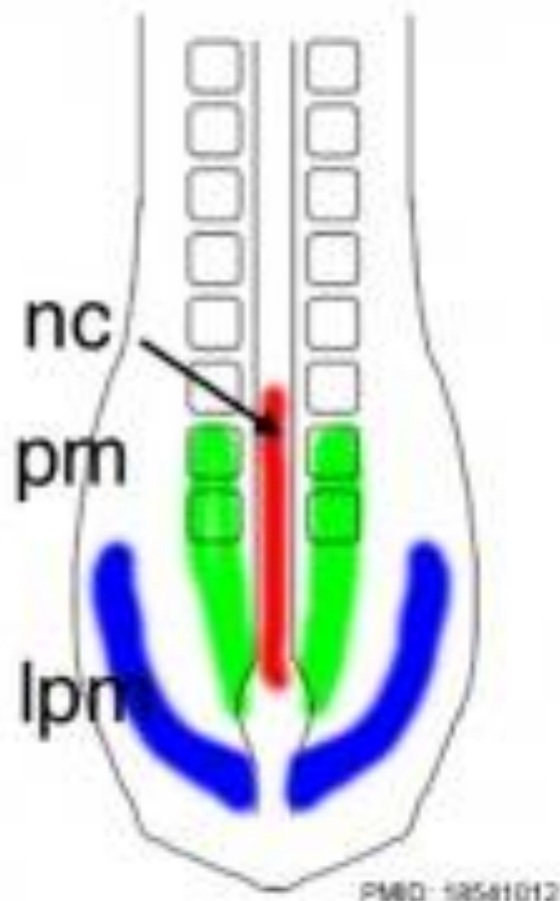
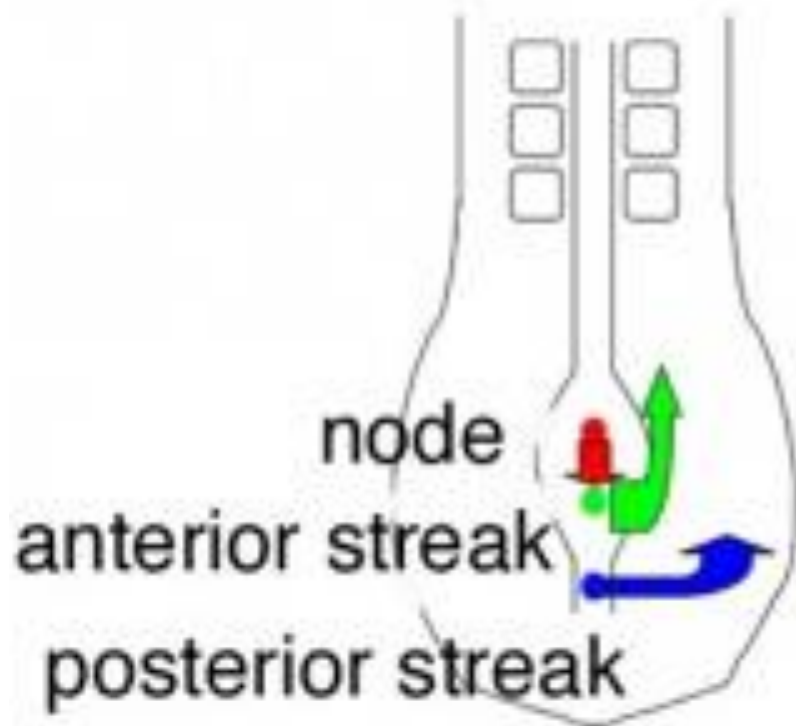
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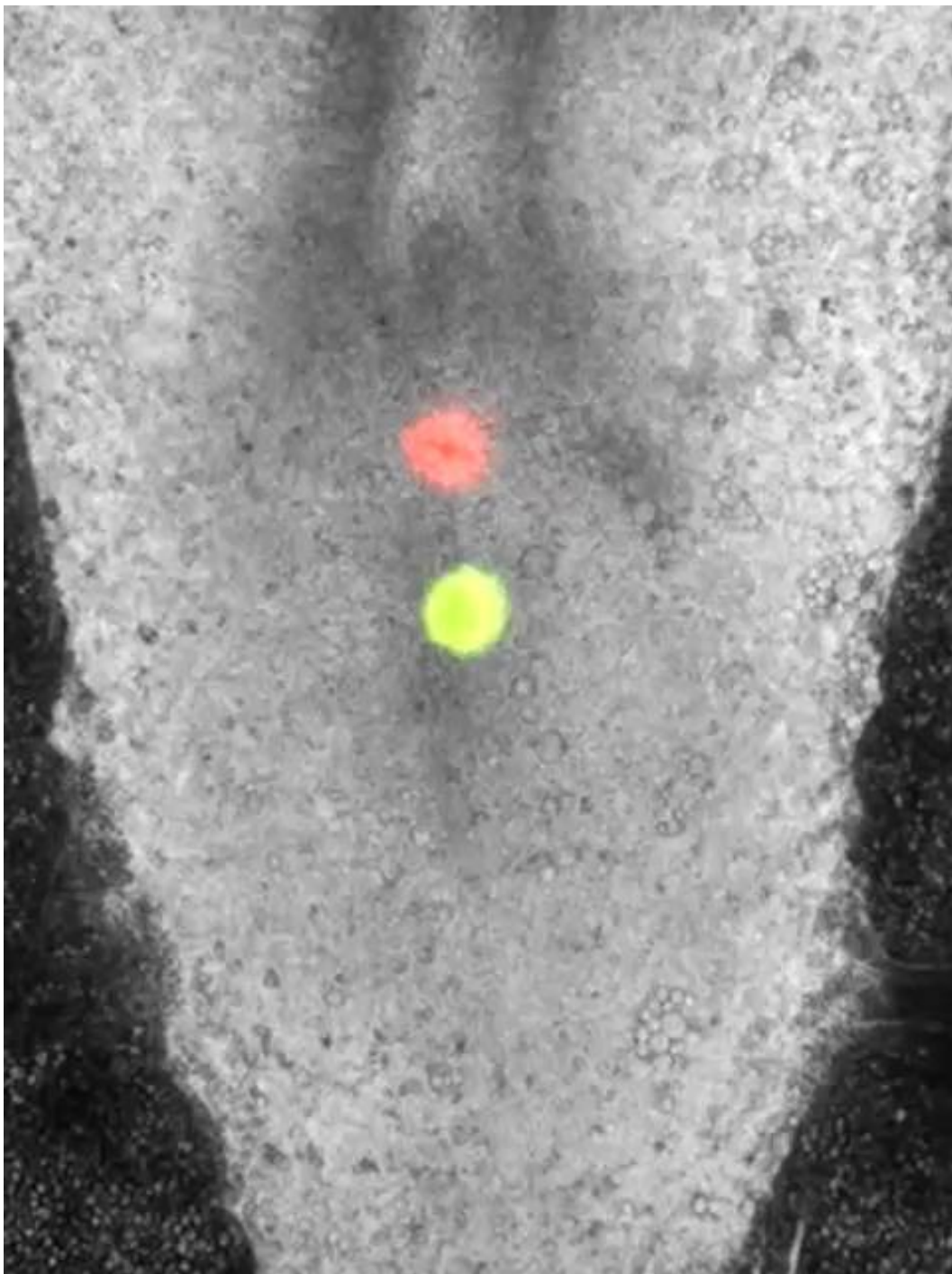
Dias AS, de Almeida I, Belmonte JM, Glazier JA, Stern CD.
Science. 2014 Feb 14;343(6172):791-5

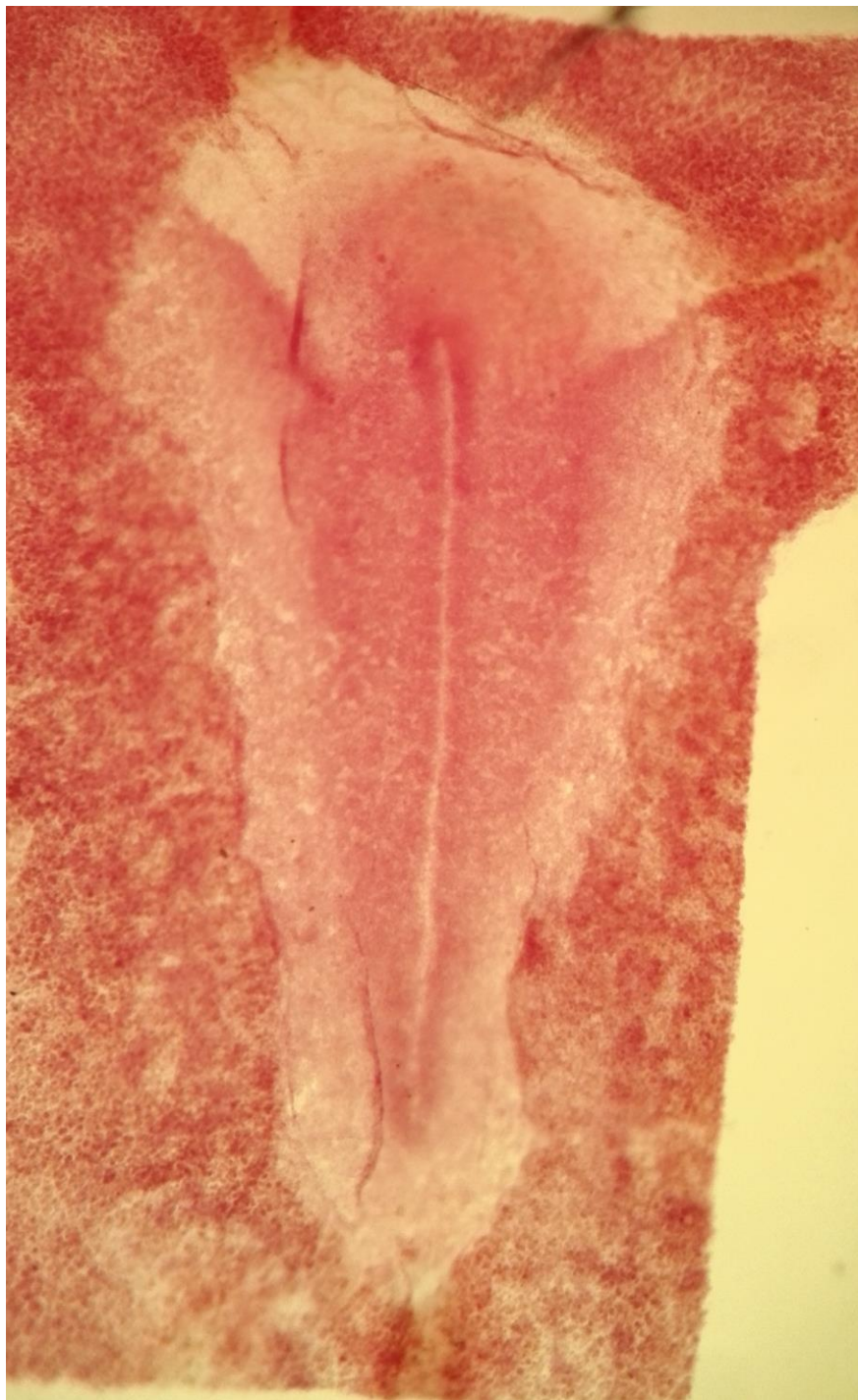


PMID: 24407478

Cell Fate from Primitive Streak
(HH stage 8 to 12 chick embryo)



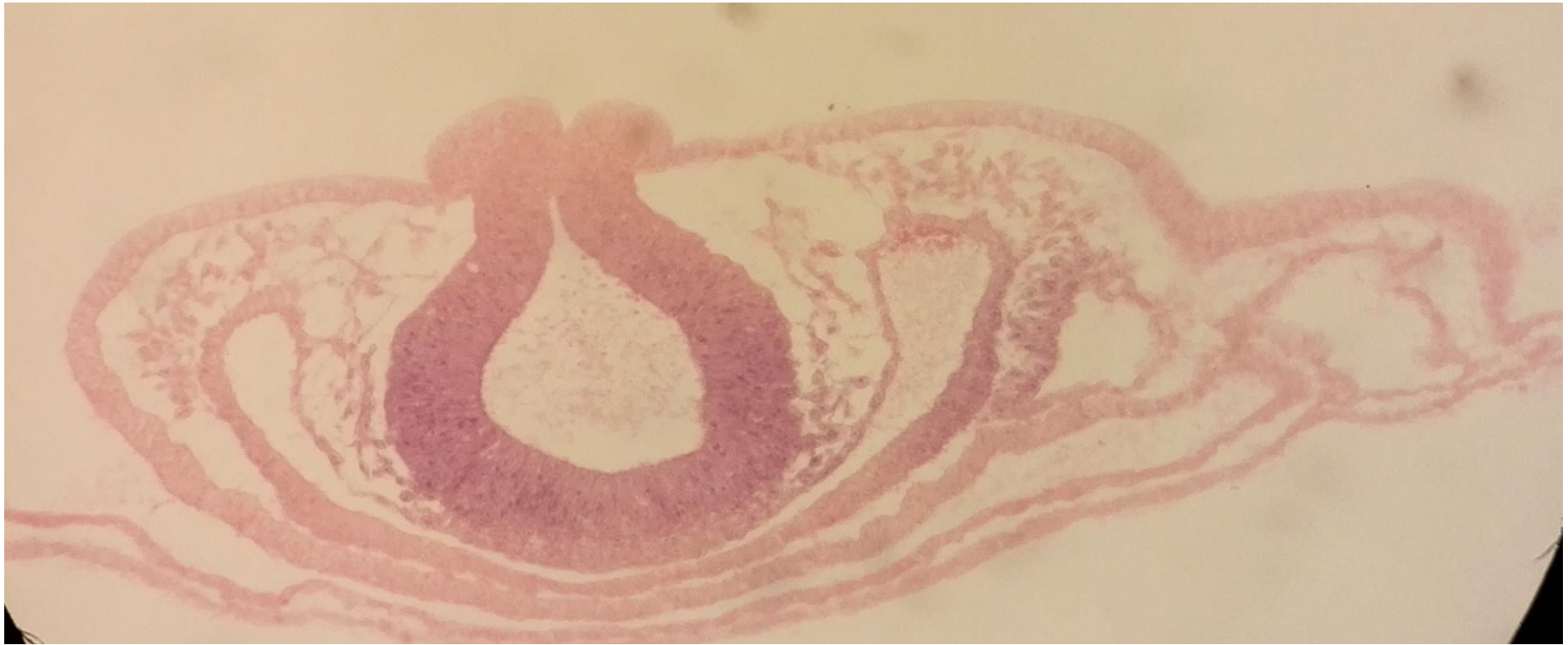




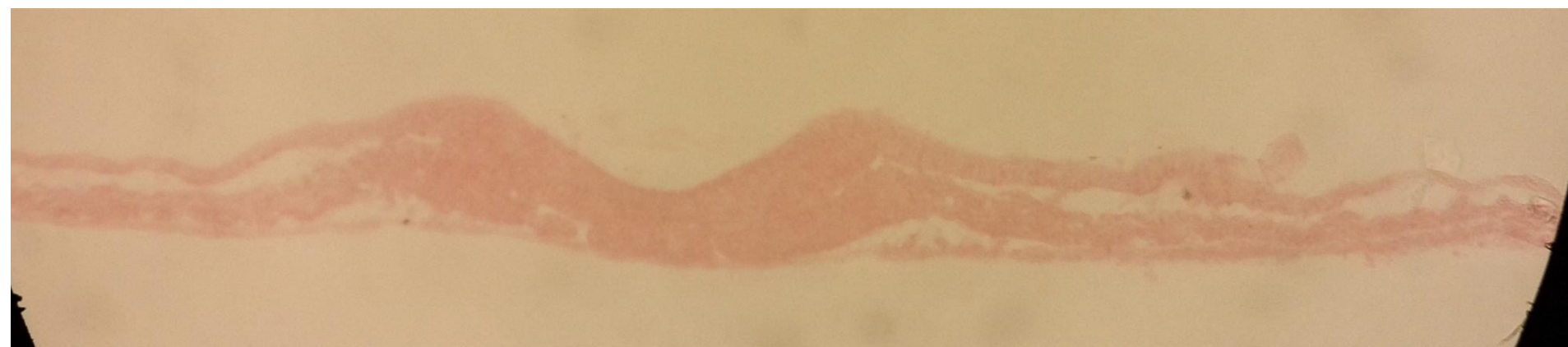


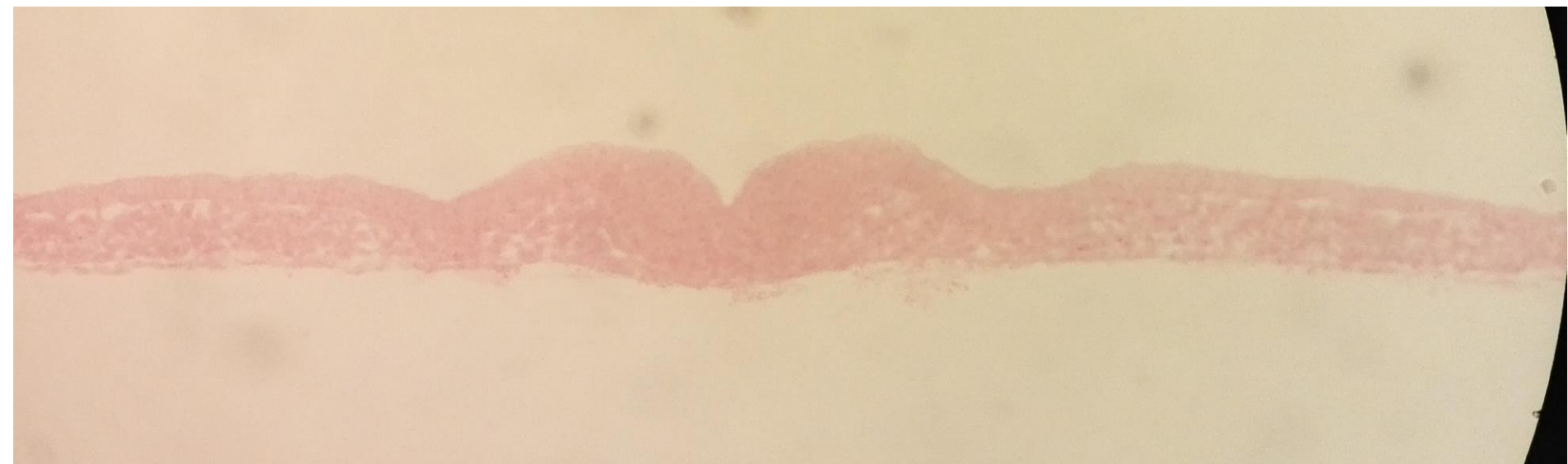






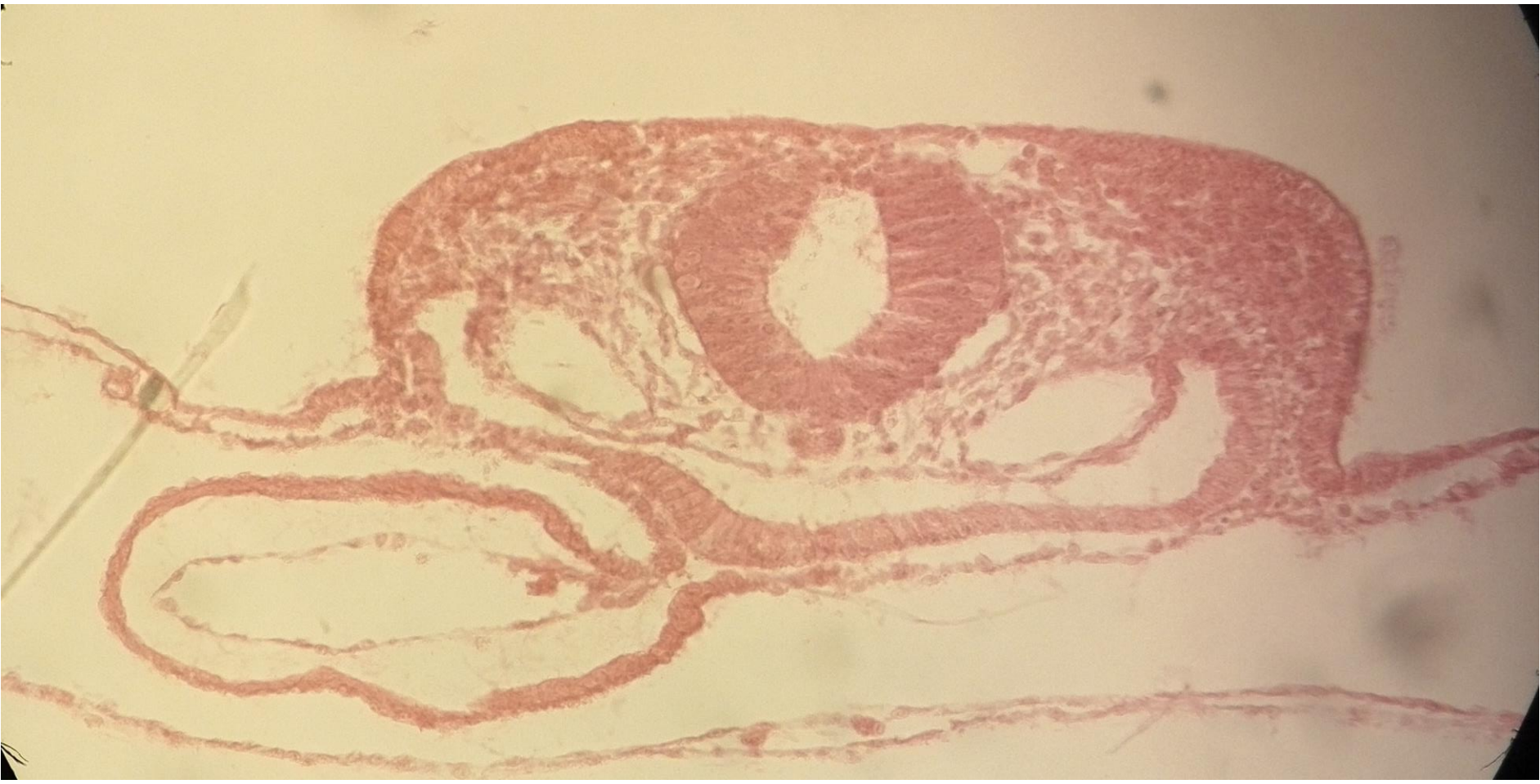


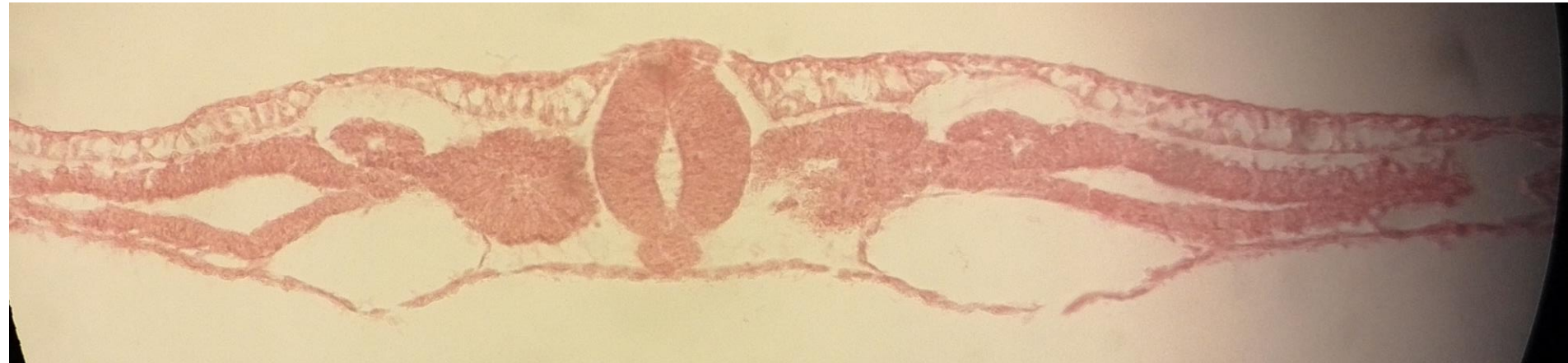


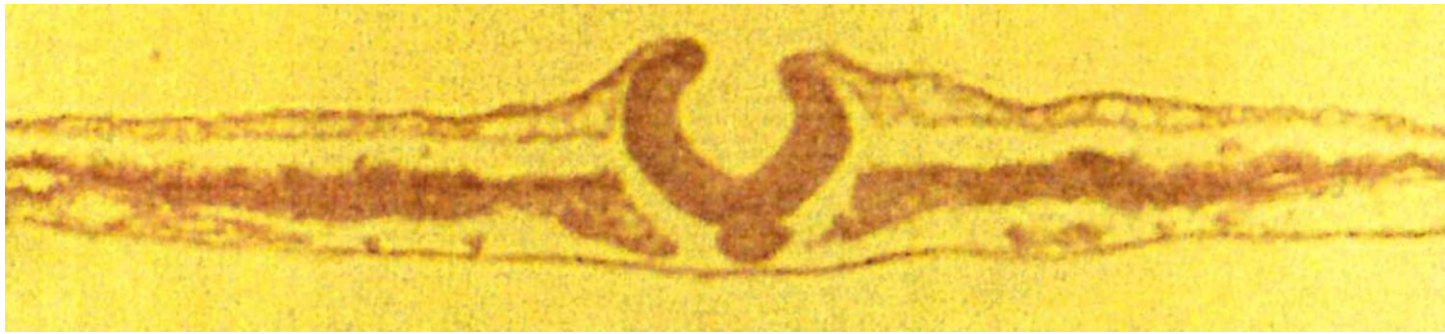
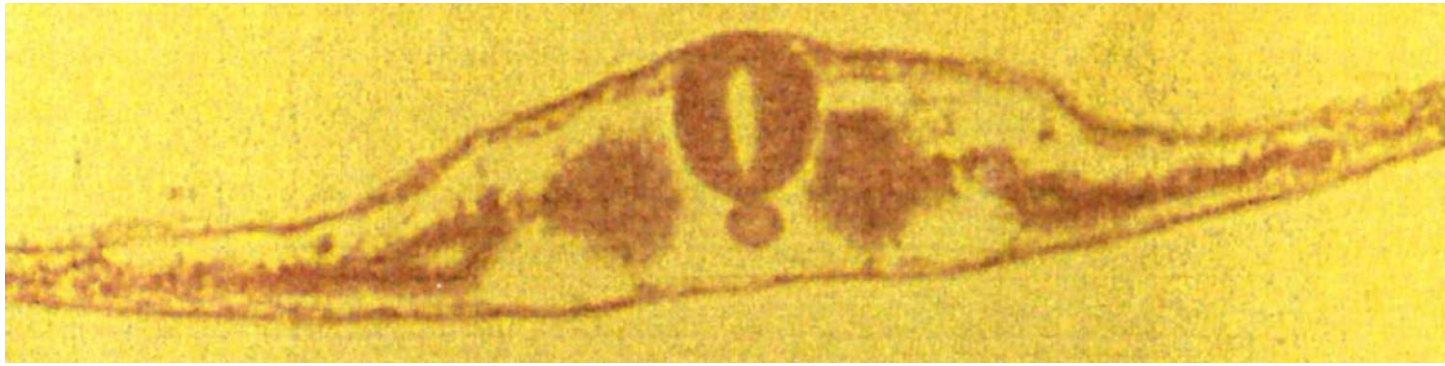
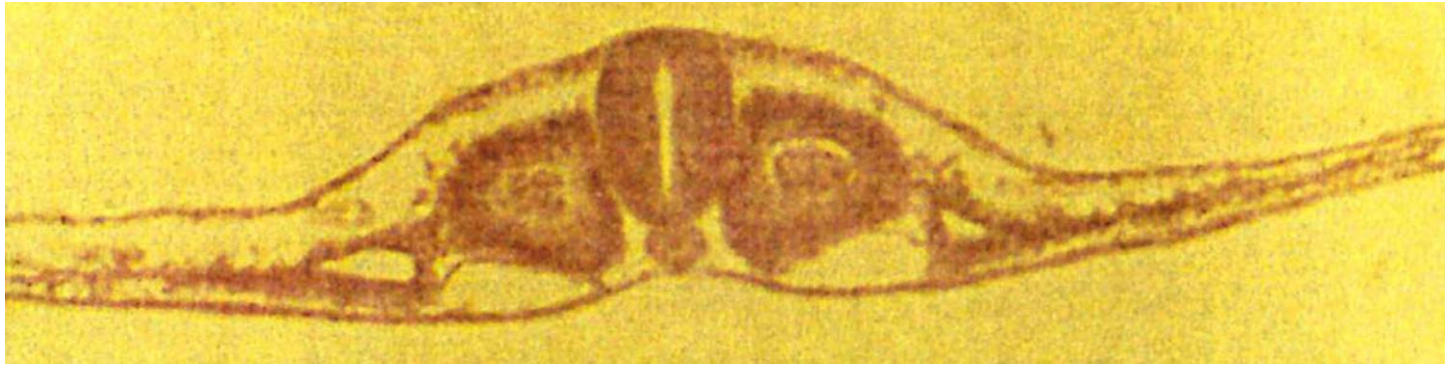




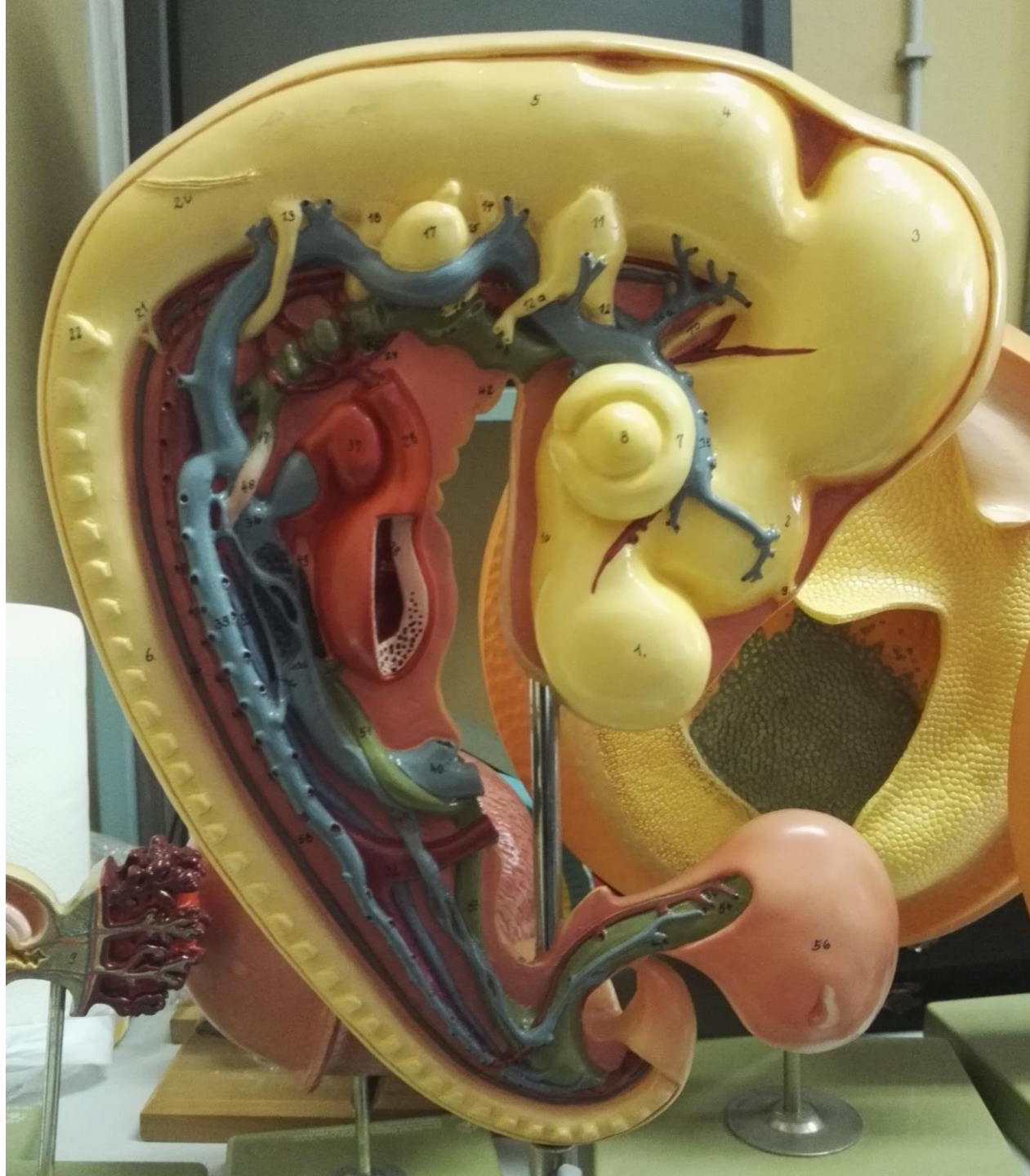


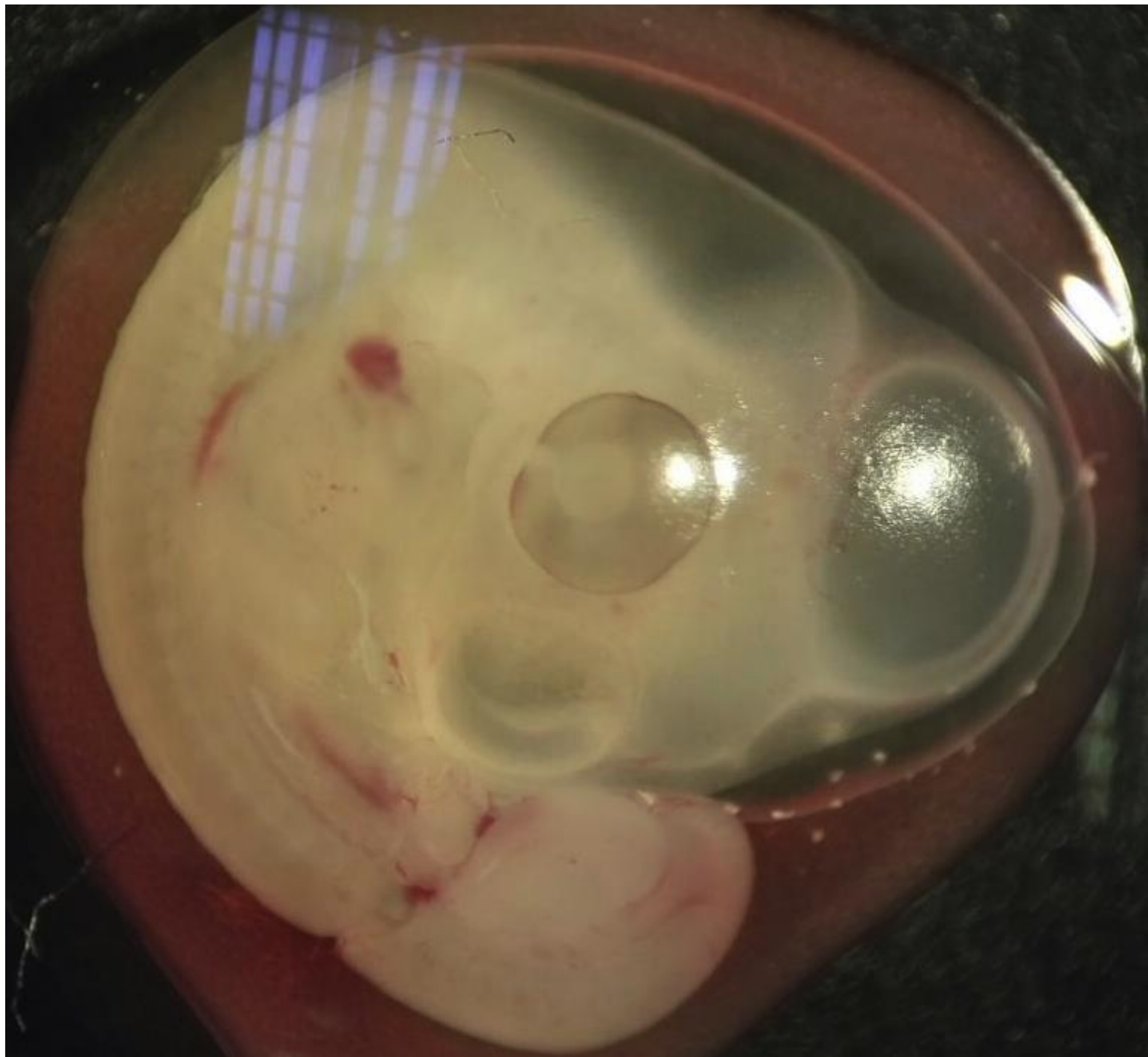


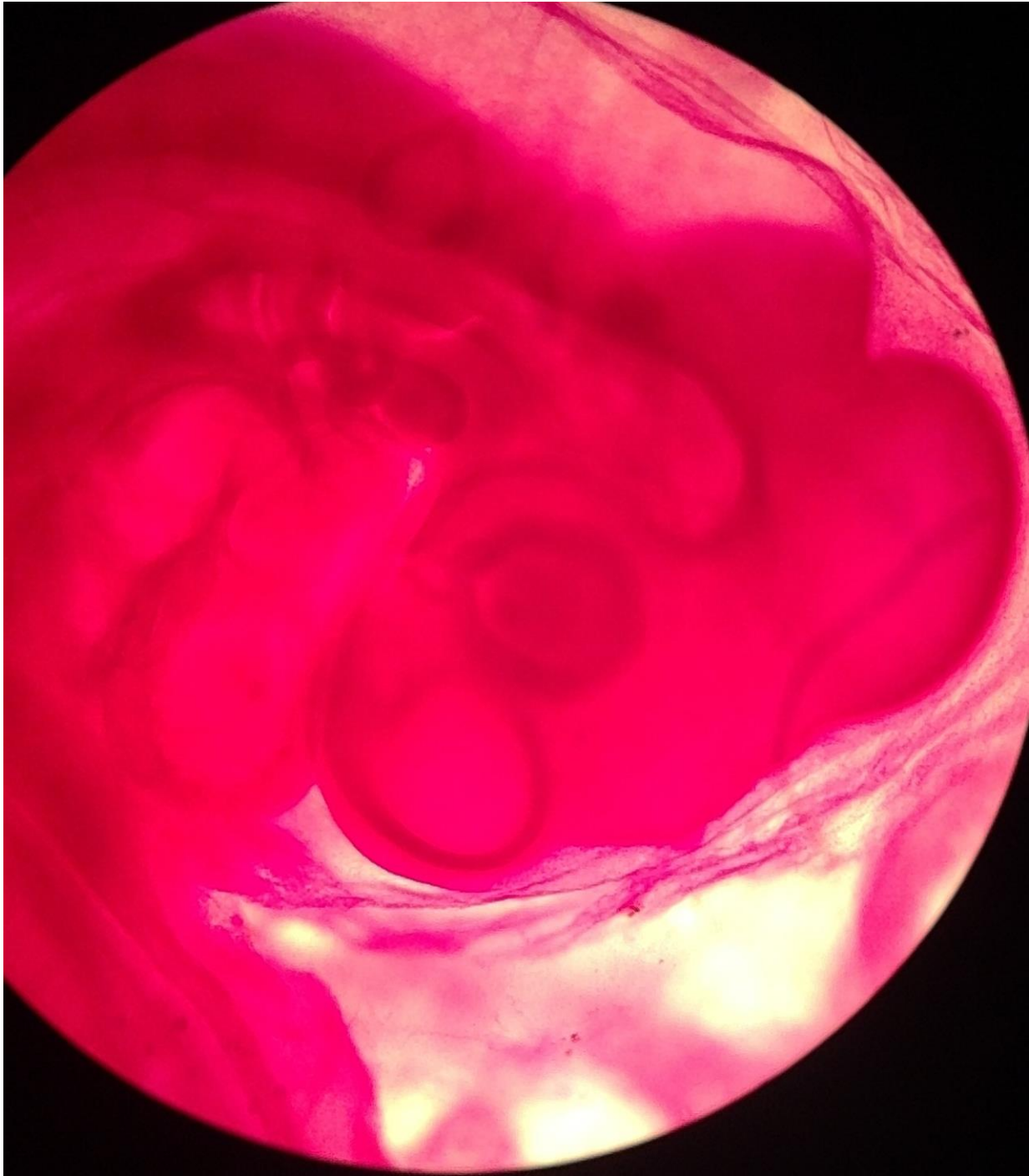




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Chick gastrulation

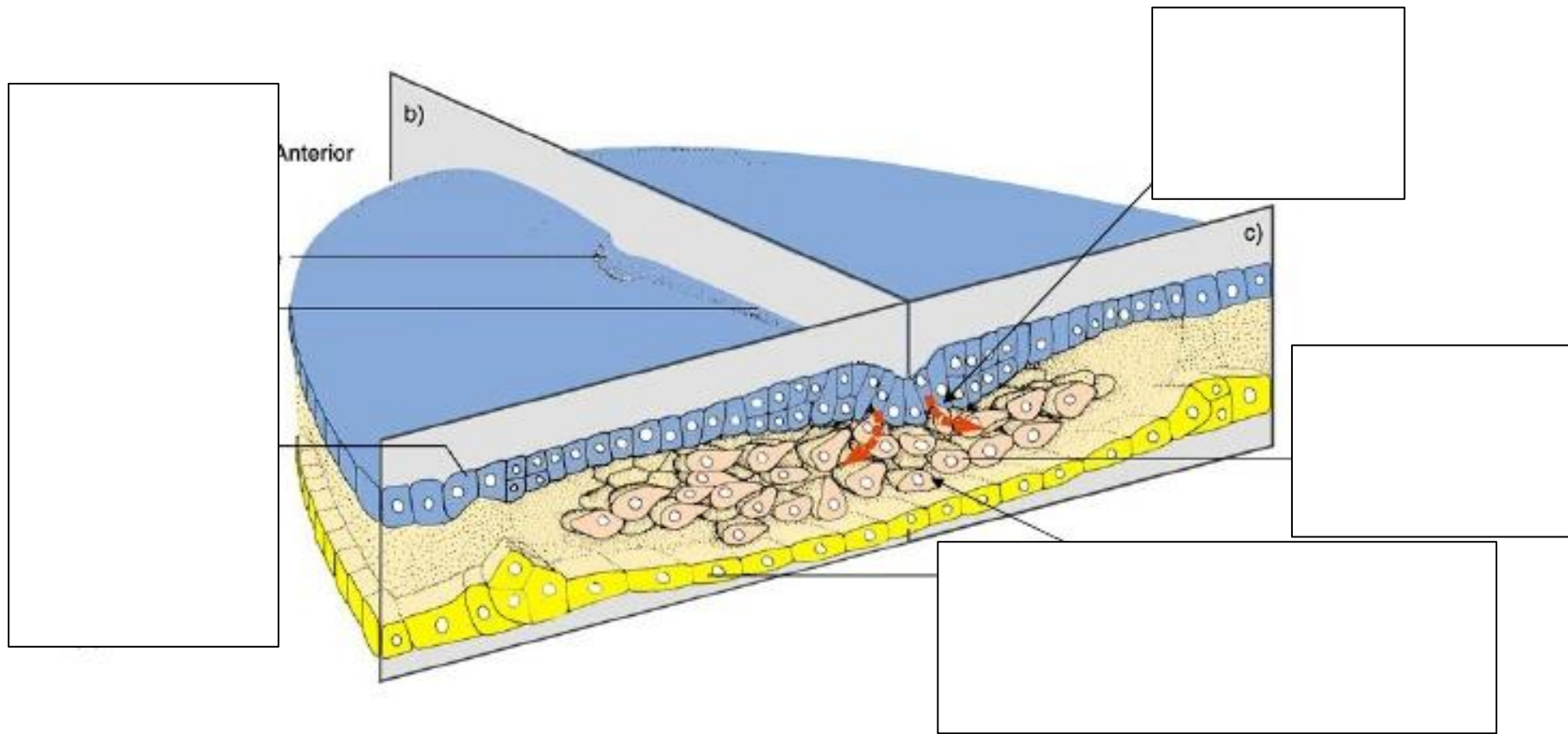


Figure 10.24

Chick gastrulation

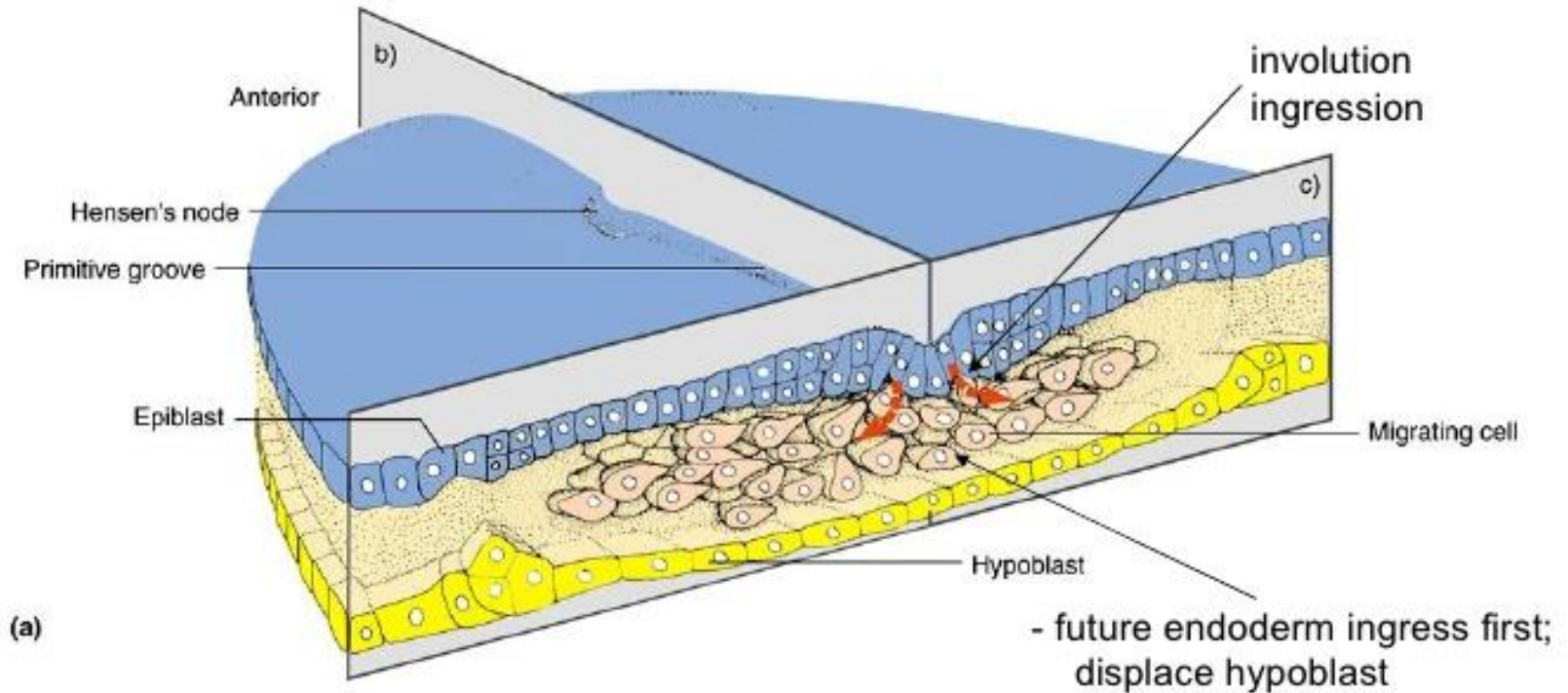
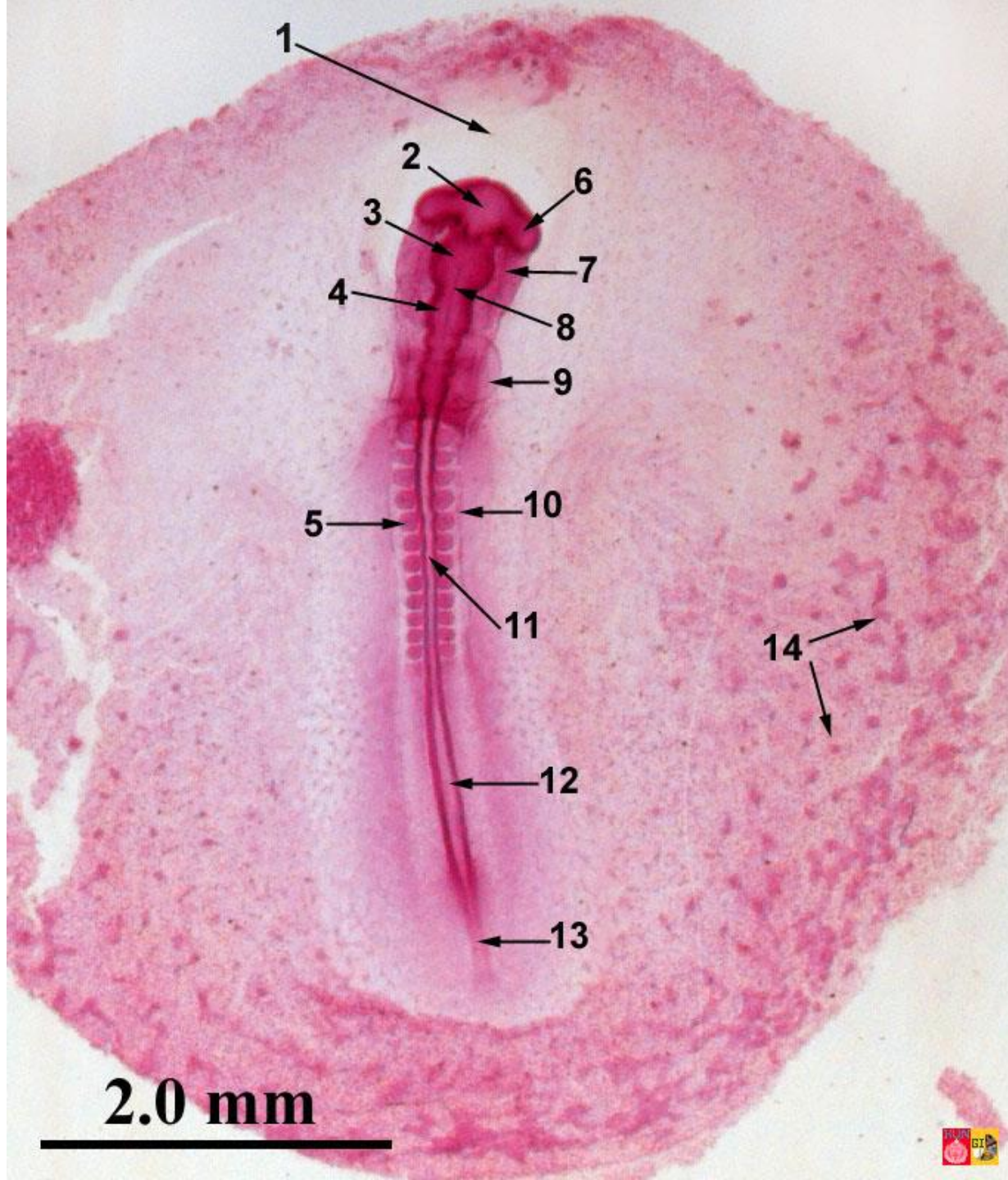
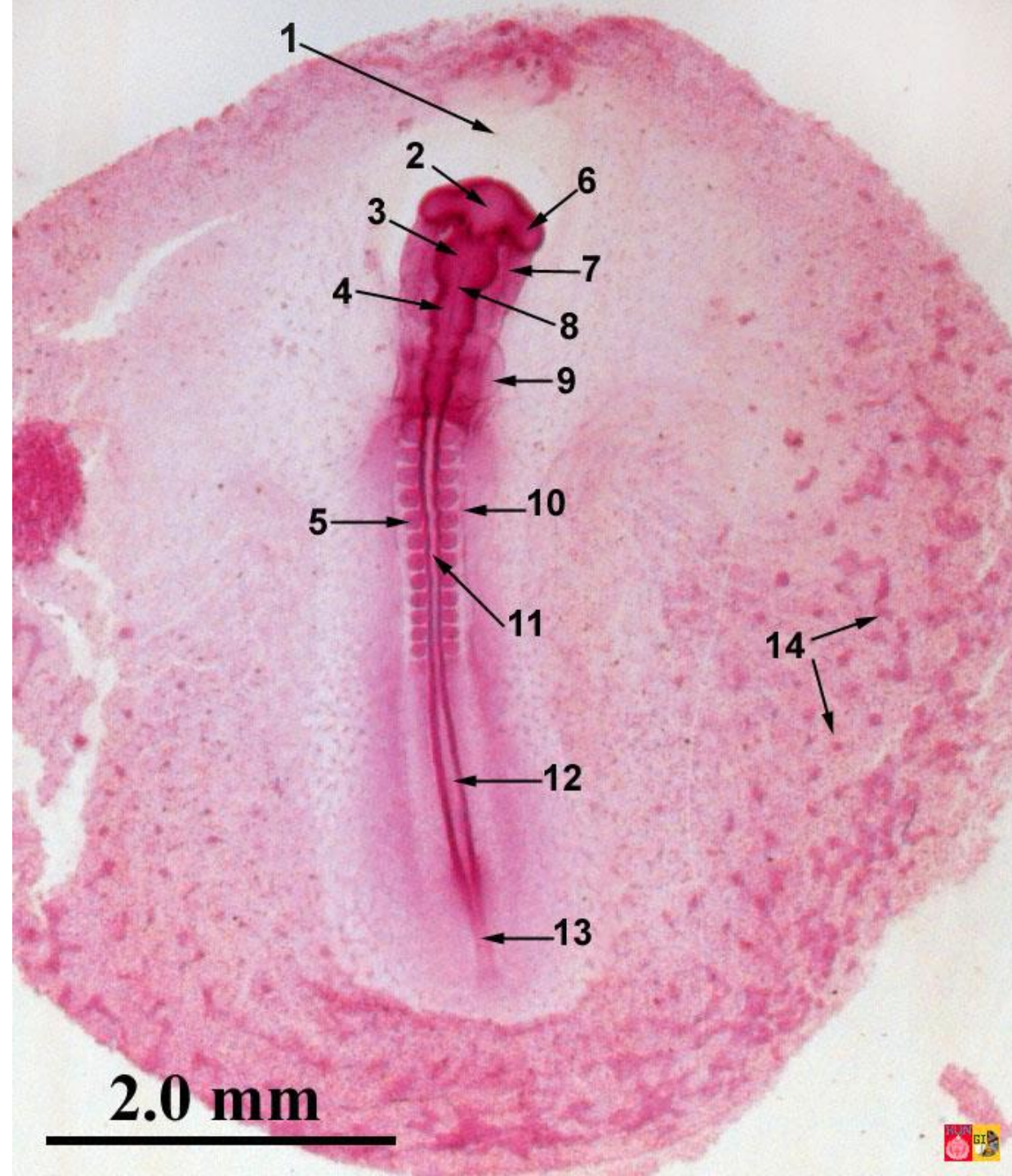


Figure 10.24



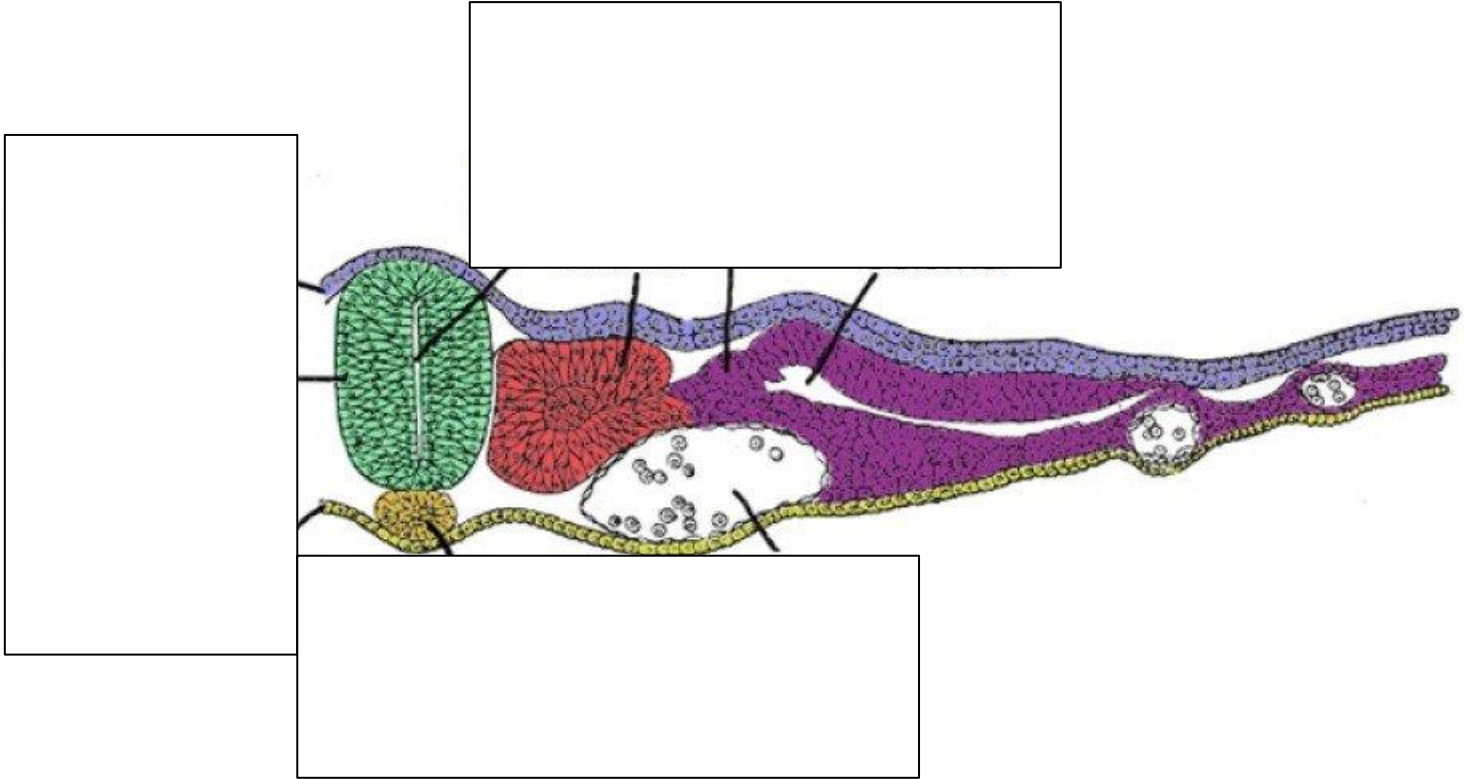


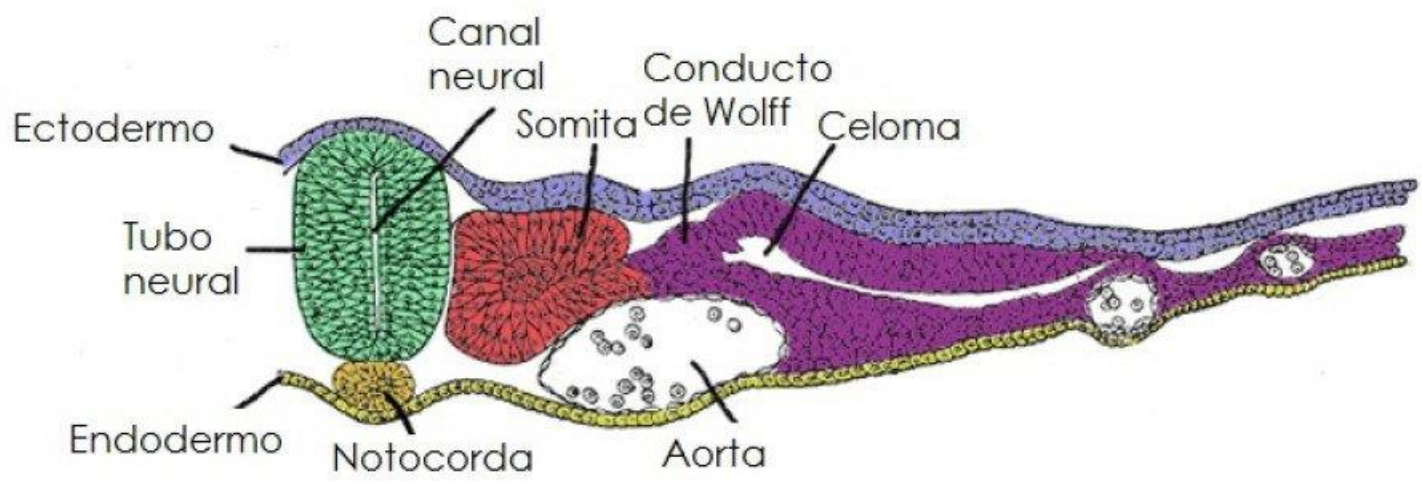
**Embryology of chicken 33 hours after fertilization:
stained whole mount preparation**

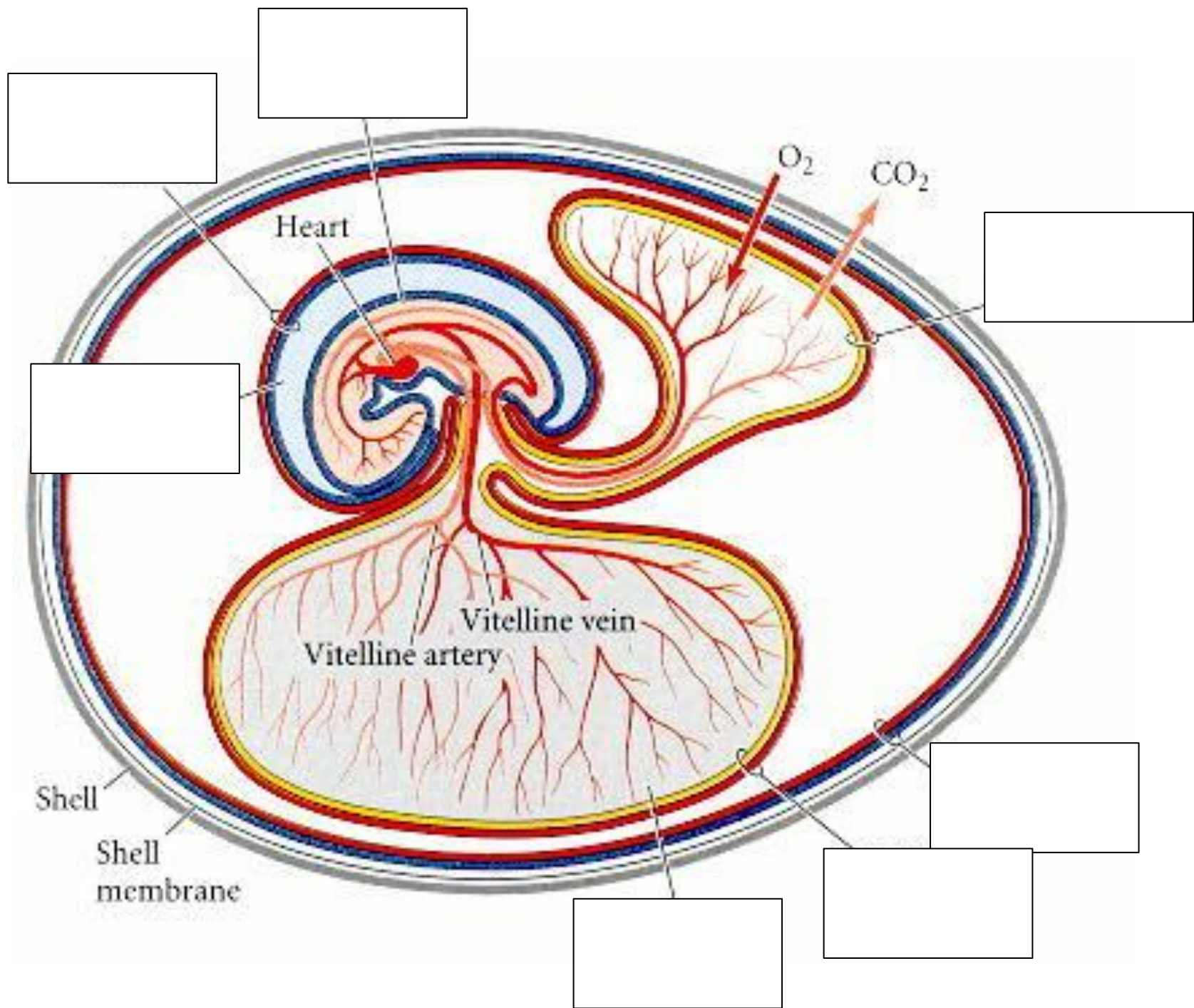
- 1 = Proamnion,
- 2 = Prosencephalon,
- 3 = Mesencephalon,
- 4 = Rhombencephalon,
- 5 = Somite, 6 = Eye vesicle,
- 7 = Foregut, 8 = Chorda (translucent), 9 = Heart,
- 10 = Lateral mesoderm,
- 11 = Spine, 12 = Sinus rhomboidalis, 13 = Primitive streak,
- 14 = Blood islands

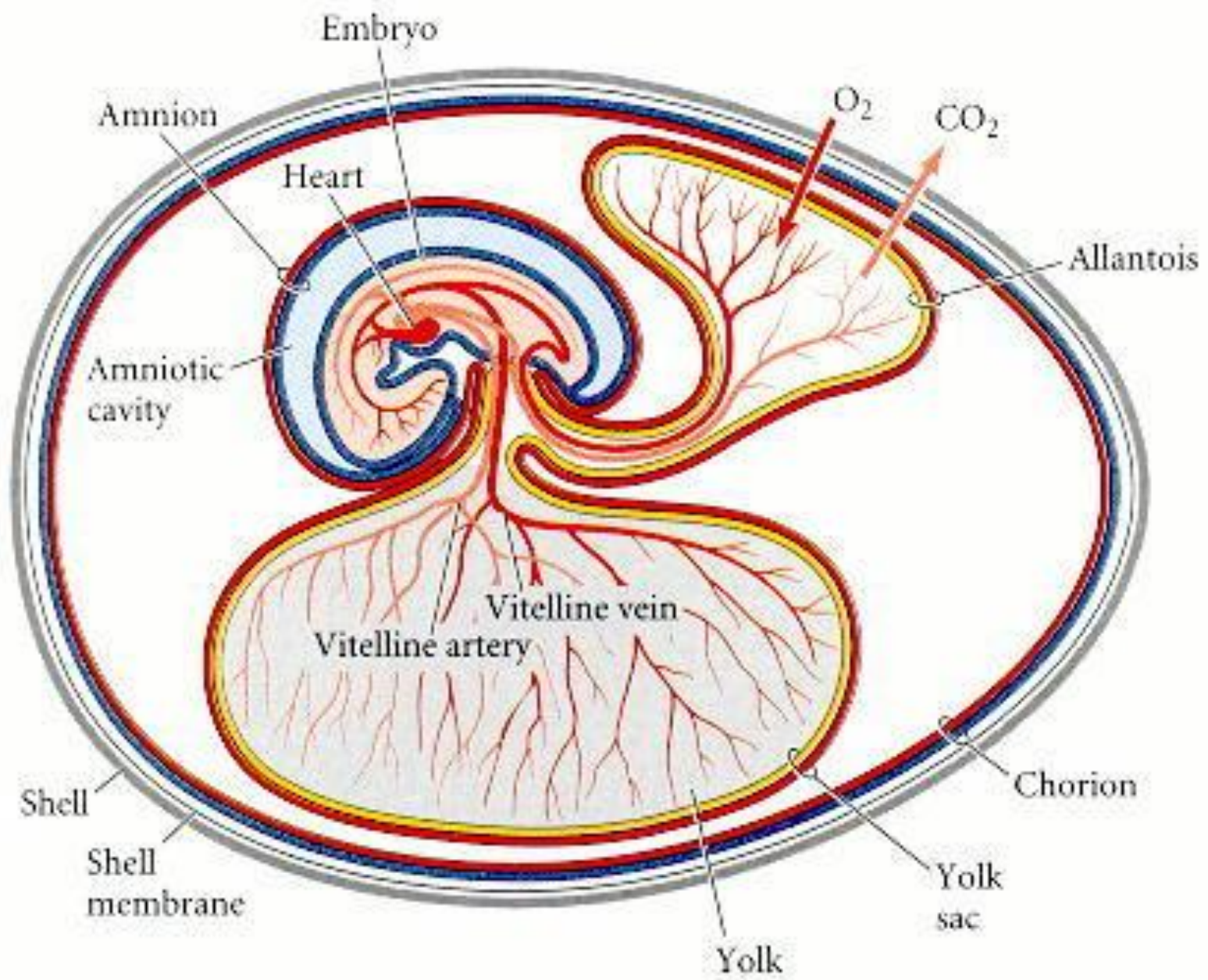
2.0 mm

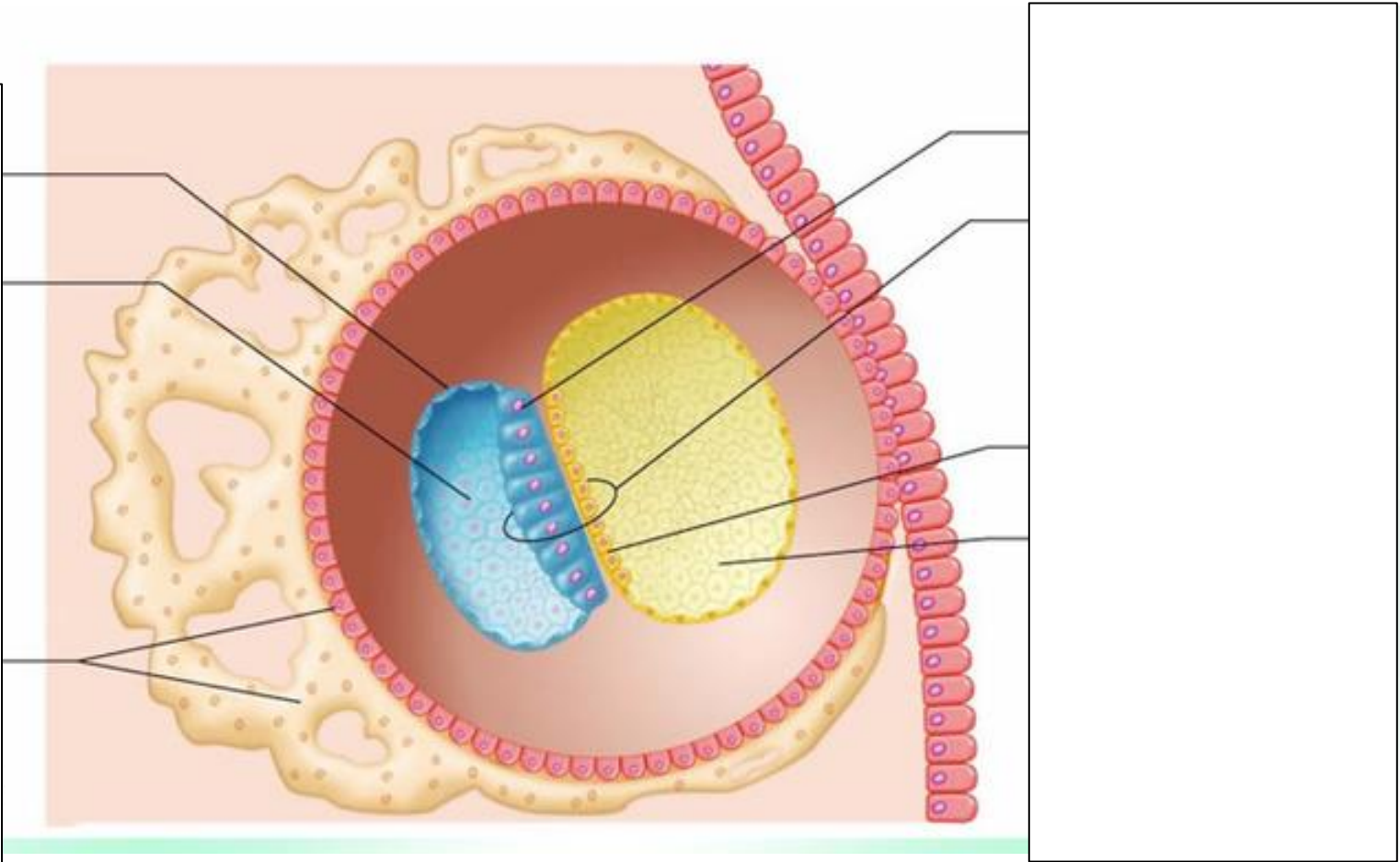






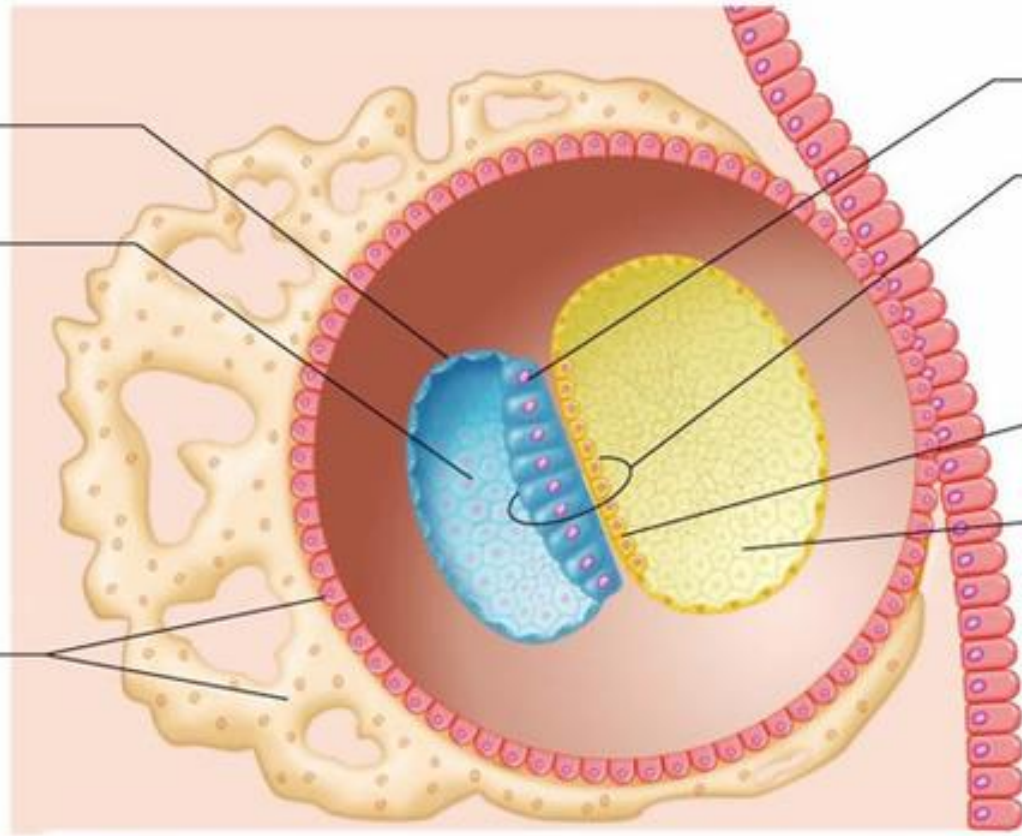




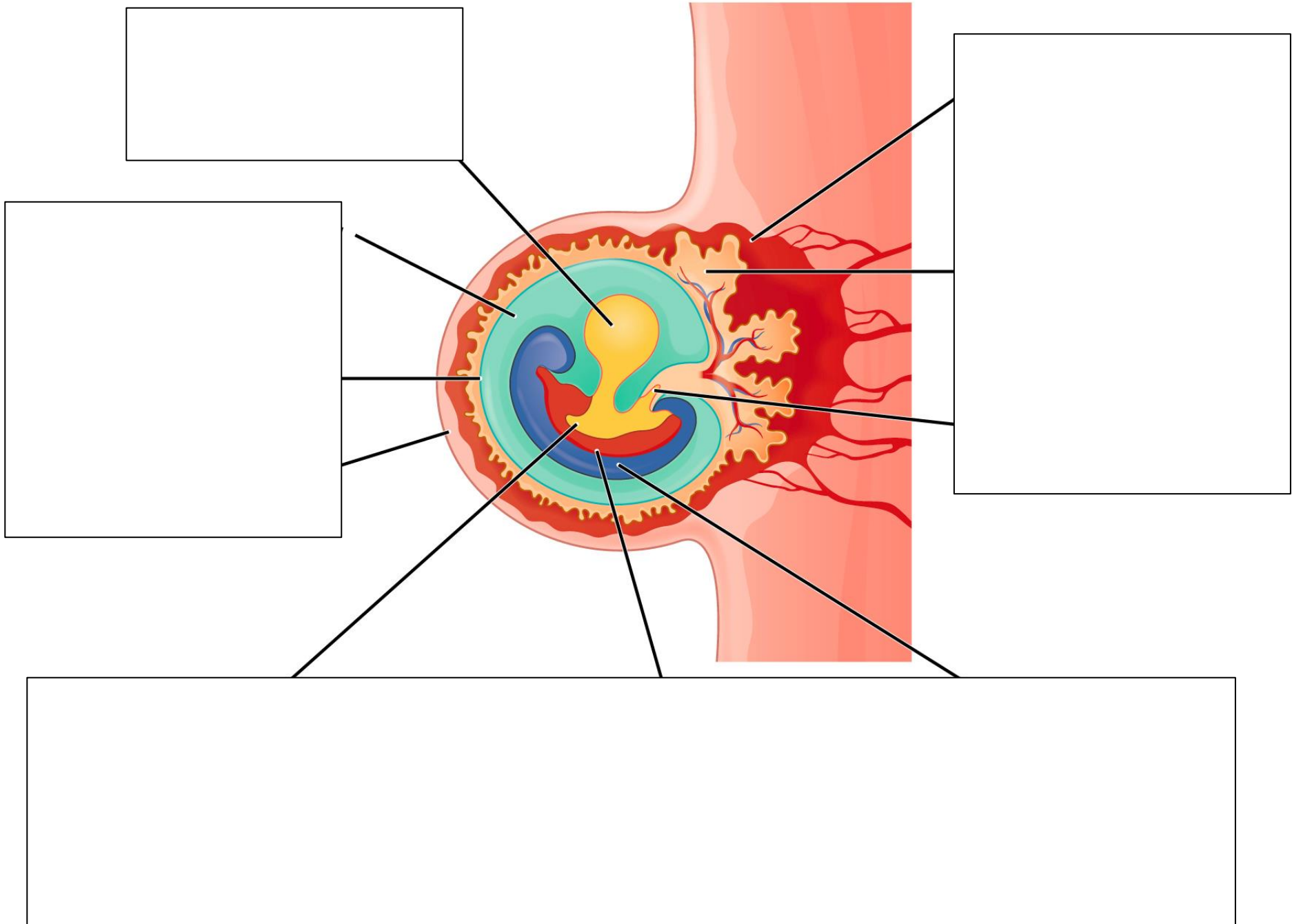


(e) Day 11

Amnion
Amniotic sac cavity
Layers from trophoblast



Epiblast
Bilaminar embryonic disc
Hypoblast
Yolk sac cavity



Yolk sac
(lined with endoderm)

Amniotic cavity
containing
amniotic fluid

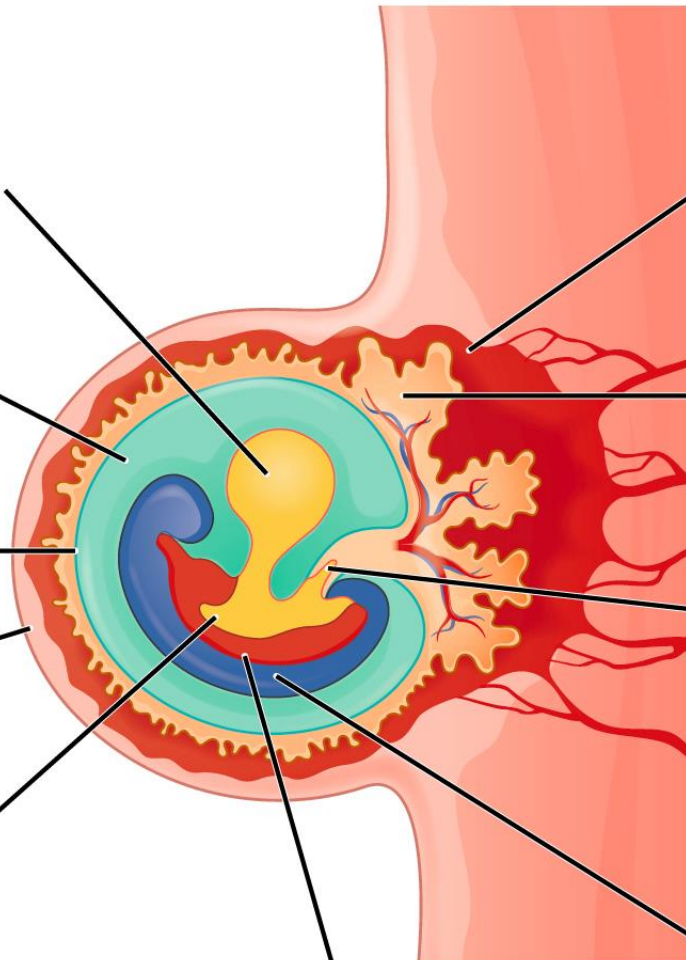
Amnion

Endometrium

Maternal
blood pool

Chorion (derived
from blastocyst
cavity membrane)

Allantois



**Endoderm layer
becomes:**

- 1) Digestive system
- 2) Liver
- 3) Pancreas
- 4) Lungs (inner layers)

**Mesoderm layer
becomes:**

- 1) Circulatory system
- 2) Lungs (epithelial layers)
- 3) Skeletal system
- 4) Muscular system

**Ectoderm layer
becomes:**

- 1) Hair
- 2) Nails
- 3) Skin
- 4) Nervous system