

# **GENERAL EMBRYOLOGY 1**

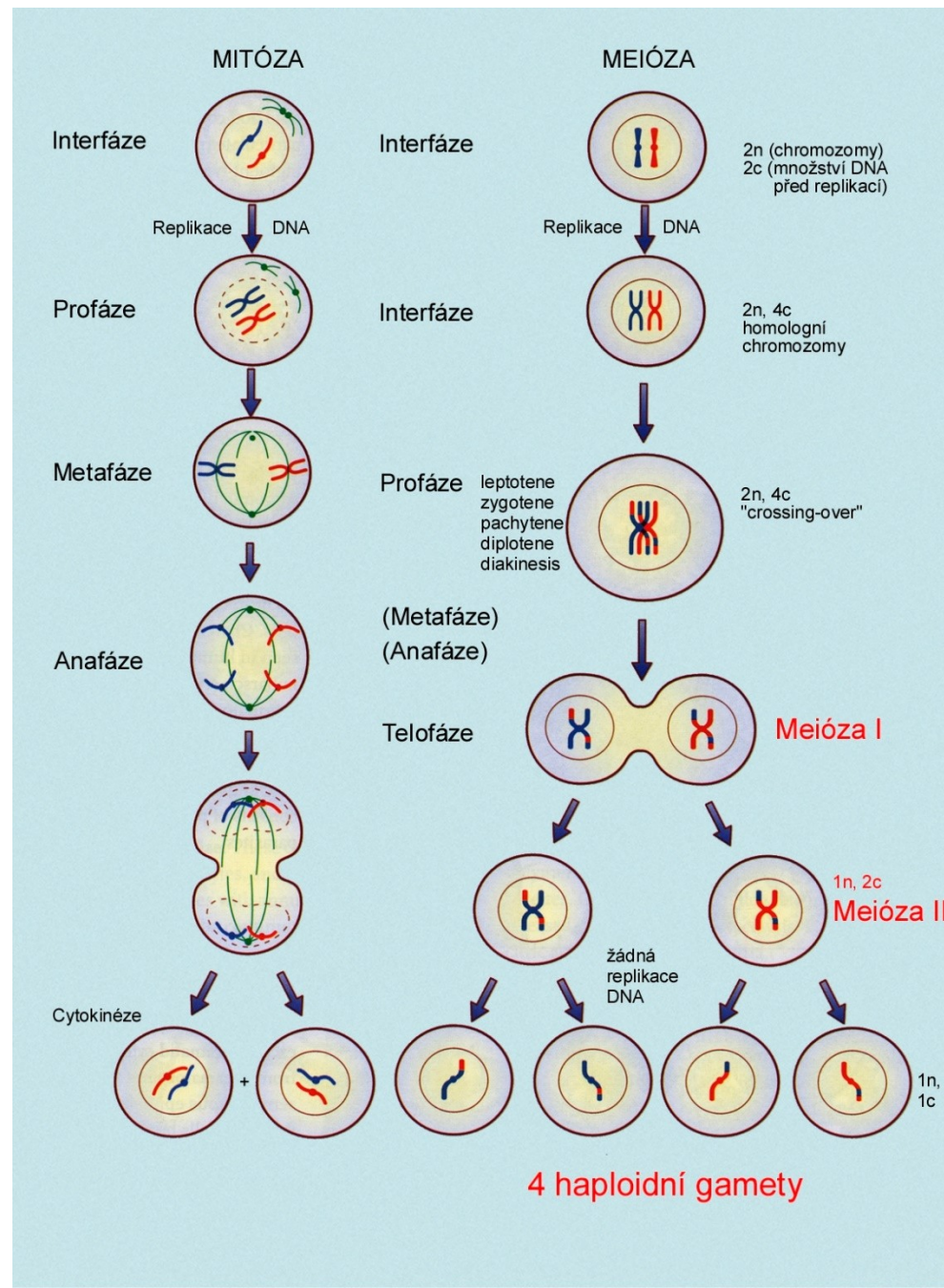
Meiosis. Development of gametes. Fertilization. Cleavage.

Implantation. Changes in blastocyst during implantation.

Differentiation of embryoblast and trophoblast.

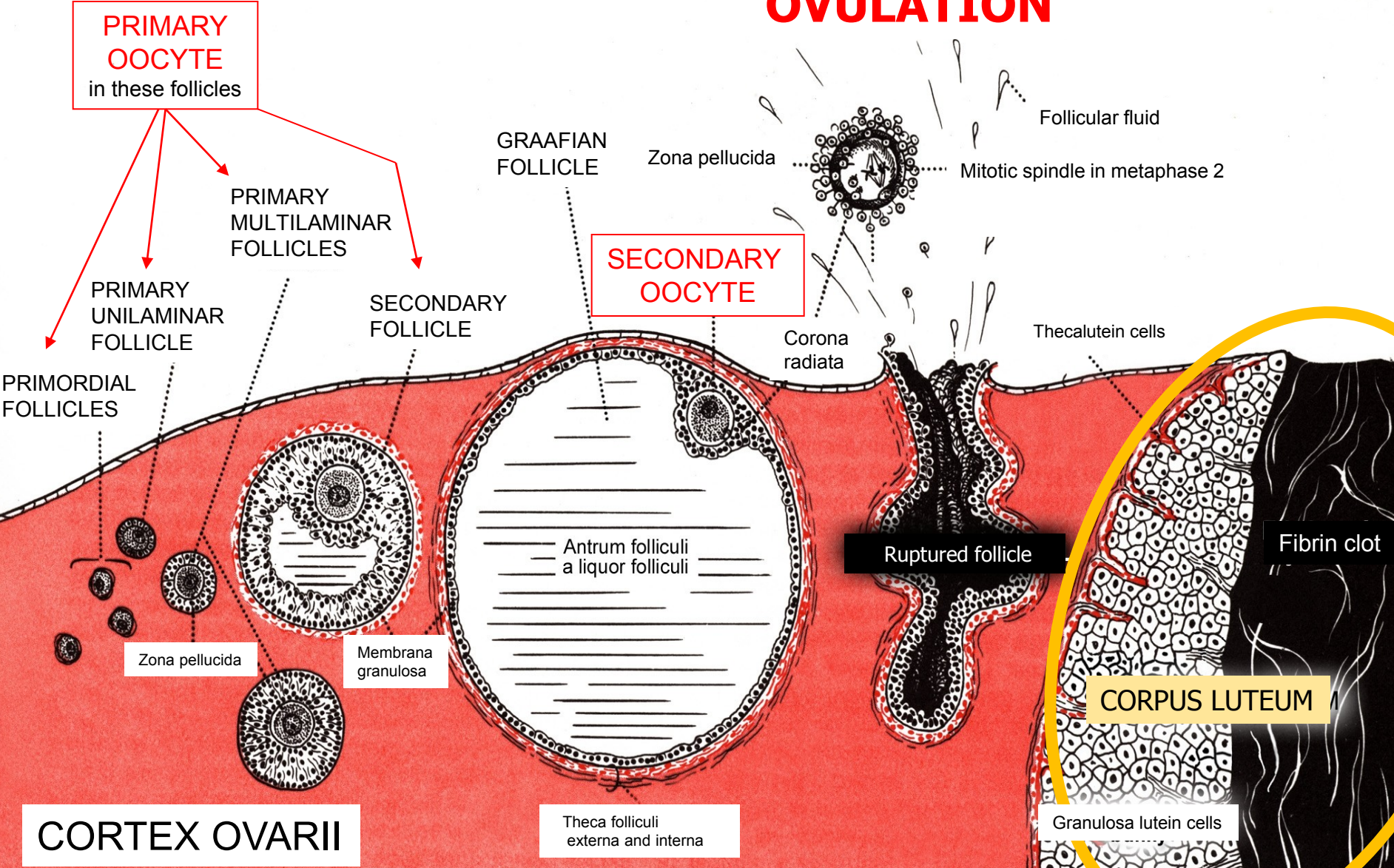
Germ disc. The axial organs of embryo. Development of embryonic mesoderm and notochord.

# MITOSIS and MEIOSIS – the main differences

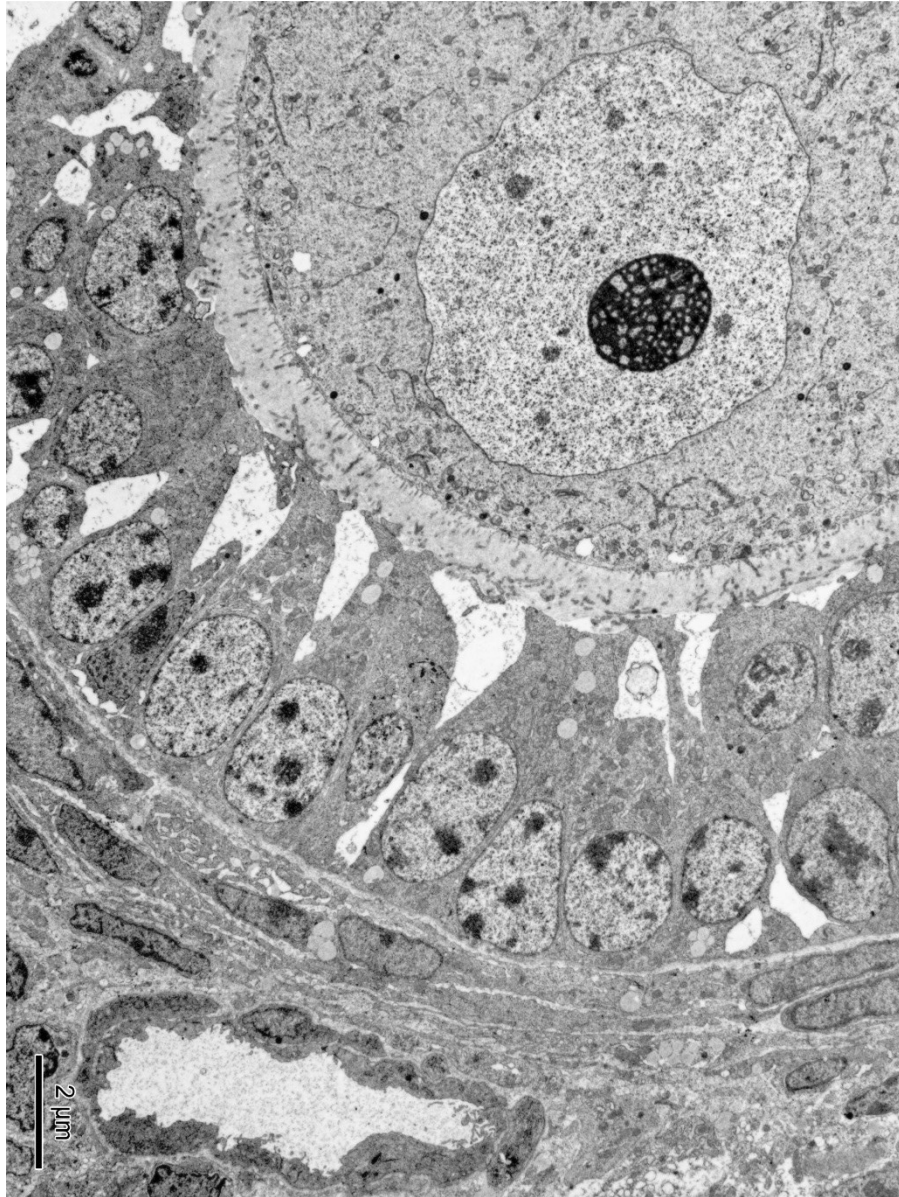


# GROWTH AND MATURATION OF OVARIAN FOLLICLES

## OVULATION



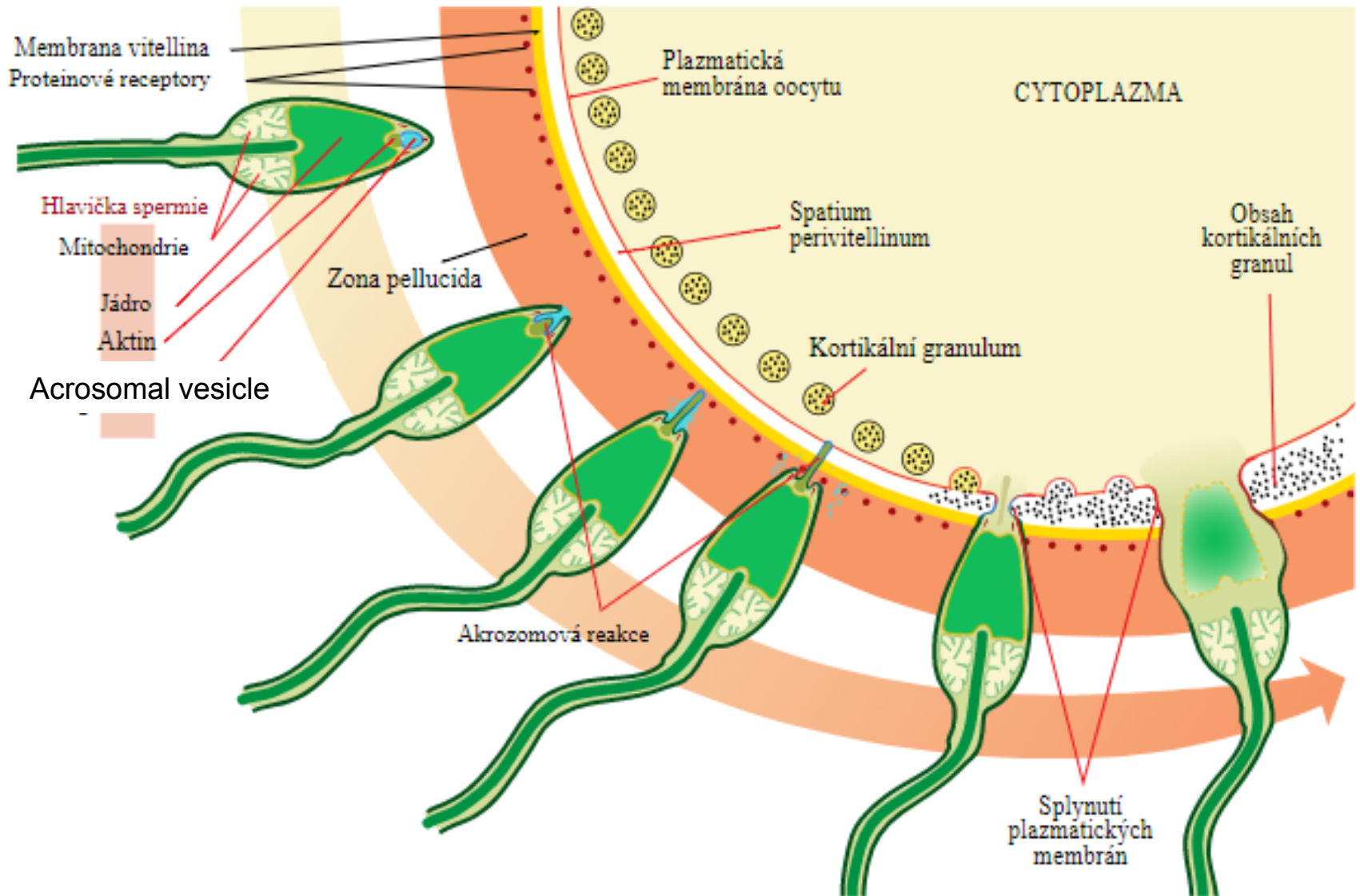
# Oocyte



# Sperm



# Acrosomal and cortical reaction

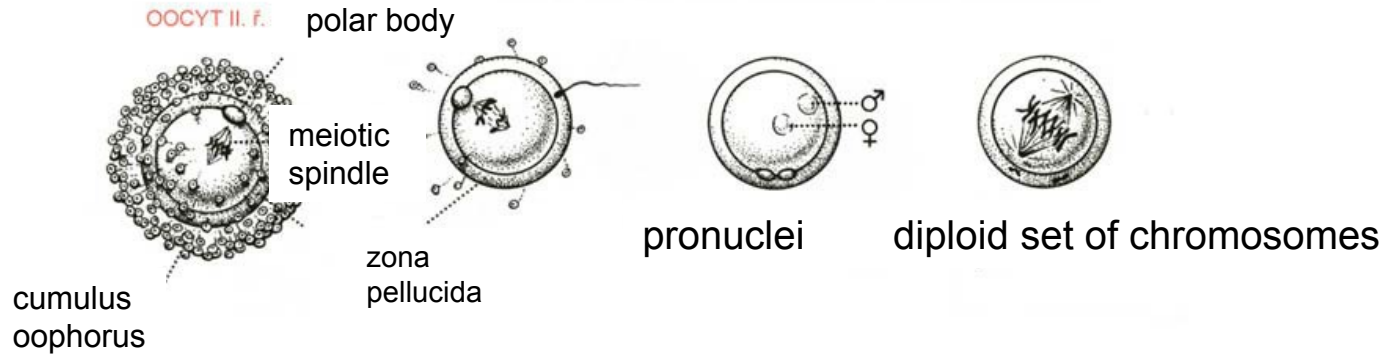


# FERTILIZATION AND IMPLANTATION

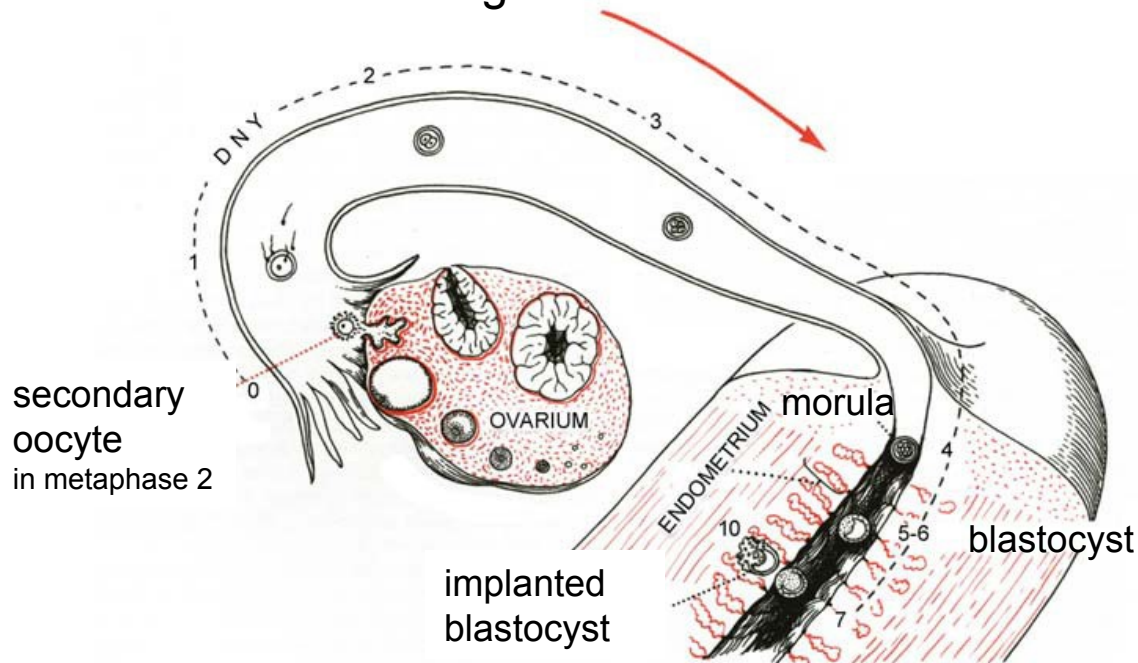
oocyte II

sperm penetration

zygote



cleavage



# FERTILIZATION

zygote

– 18 h after fertilization



24 h



45 h



morula - 72 h

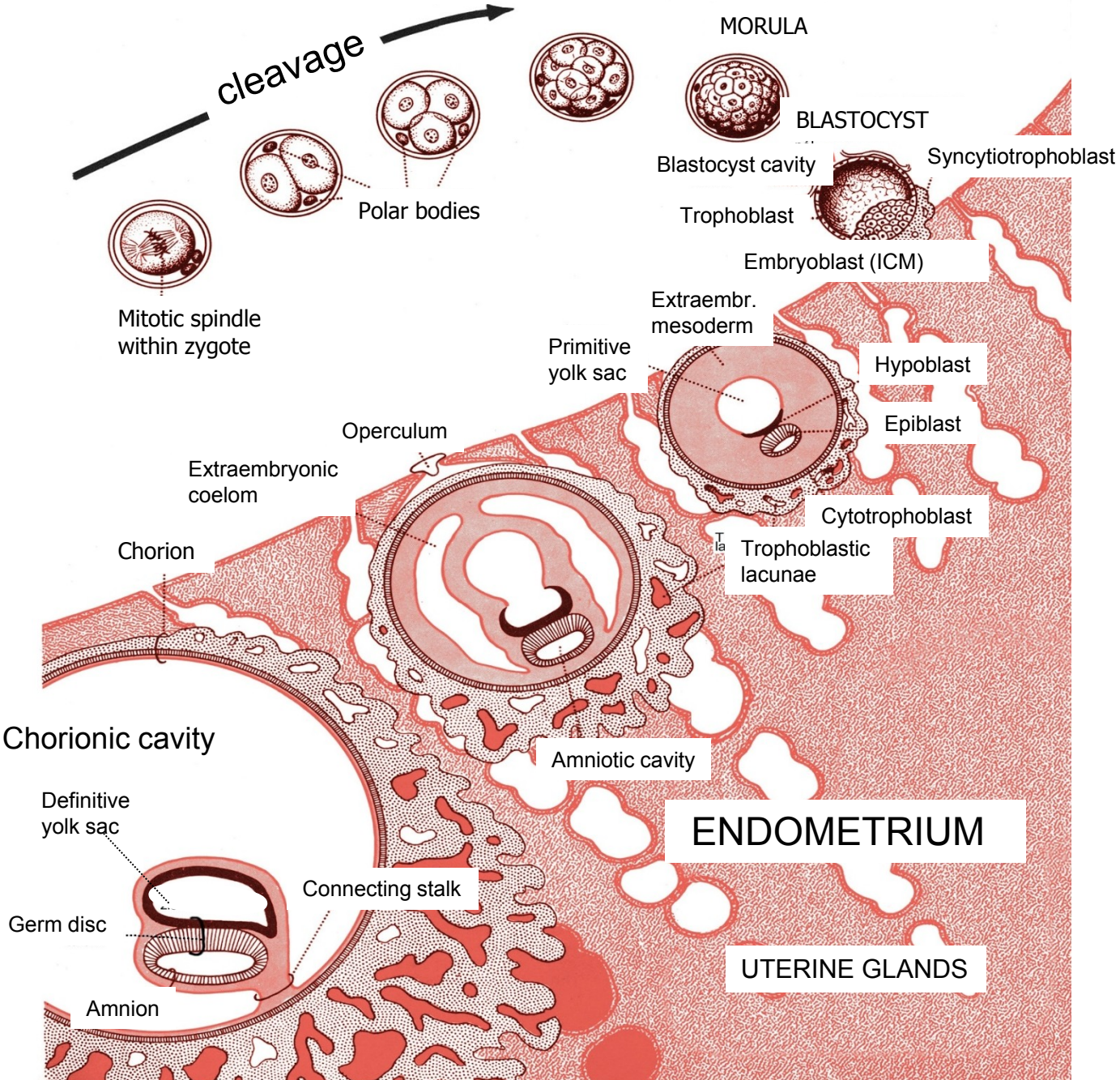


morula – 96 h



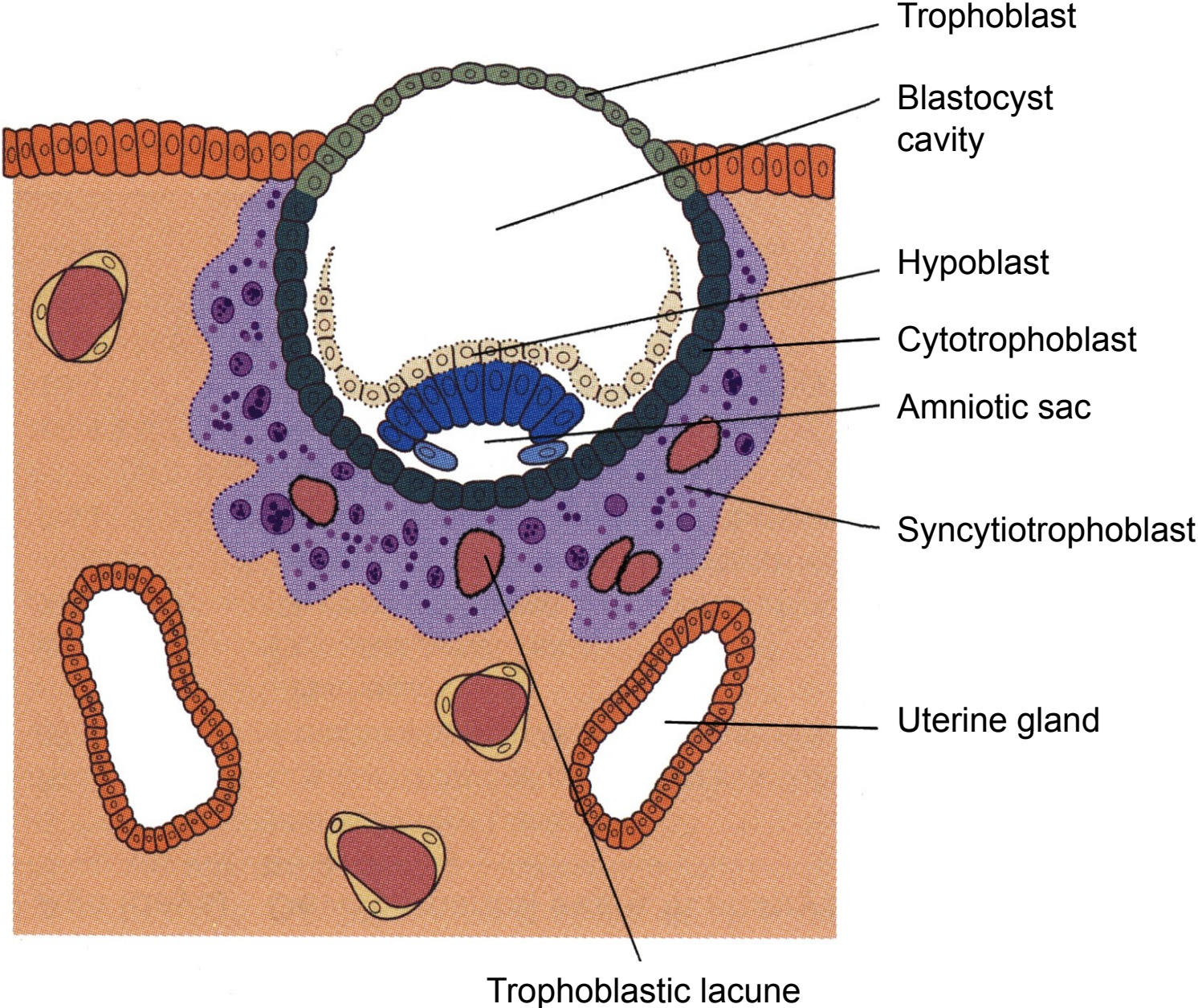
blastocyst

# CLEAVAGE AND IMPLANTATION

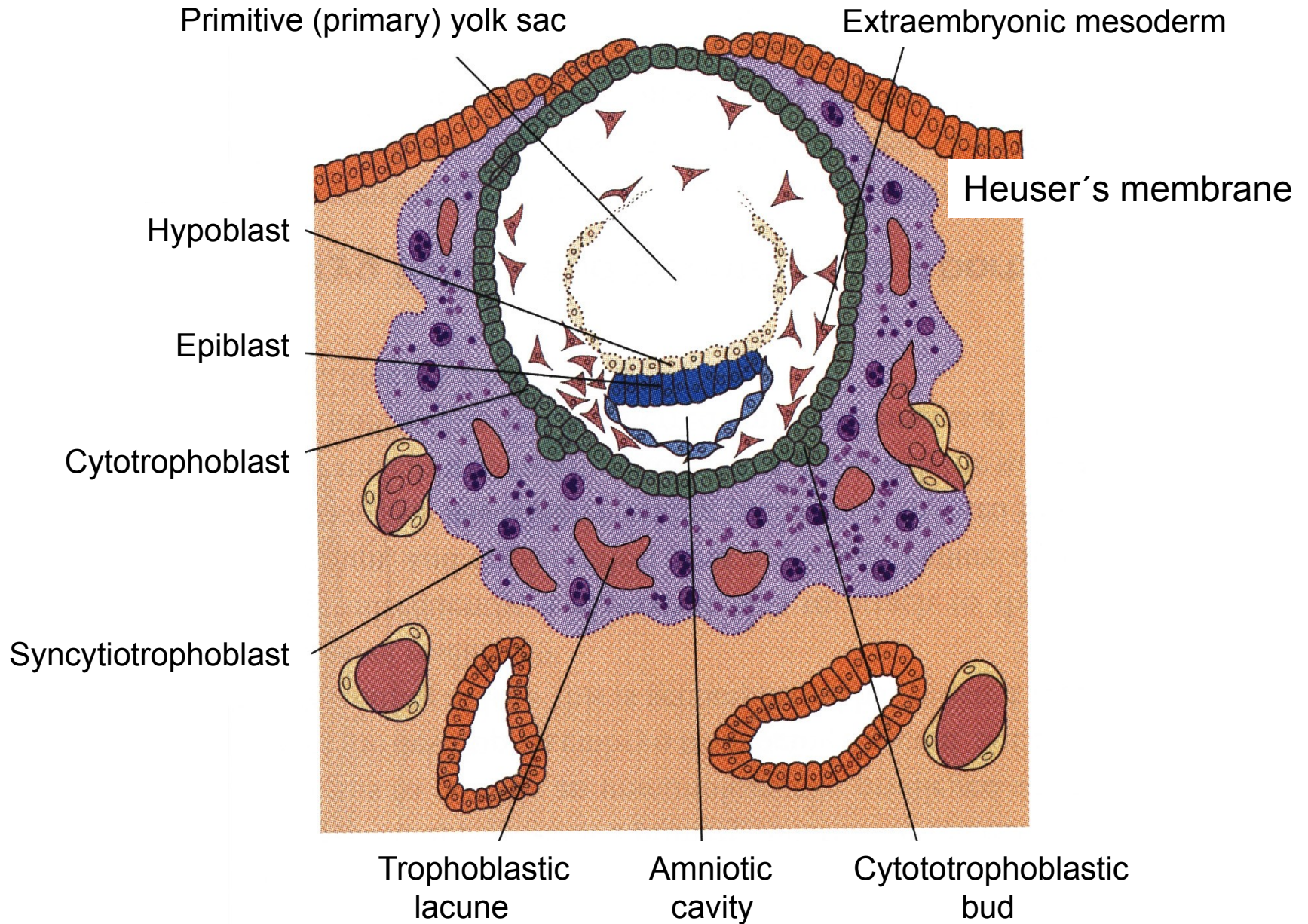




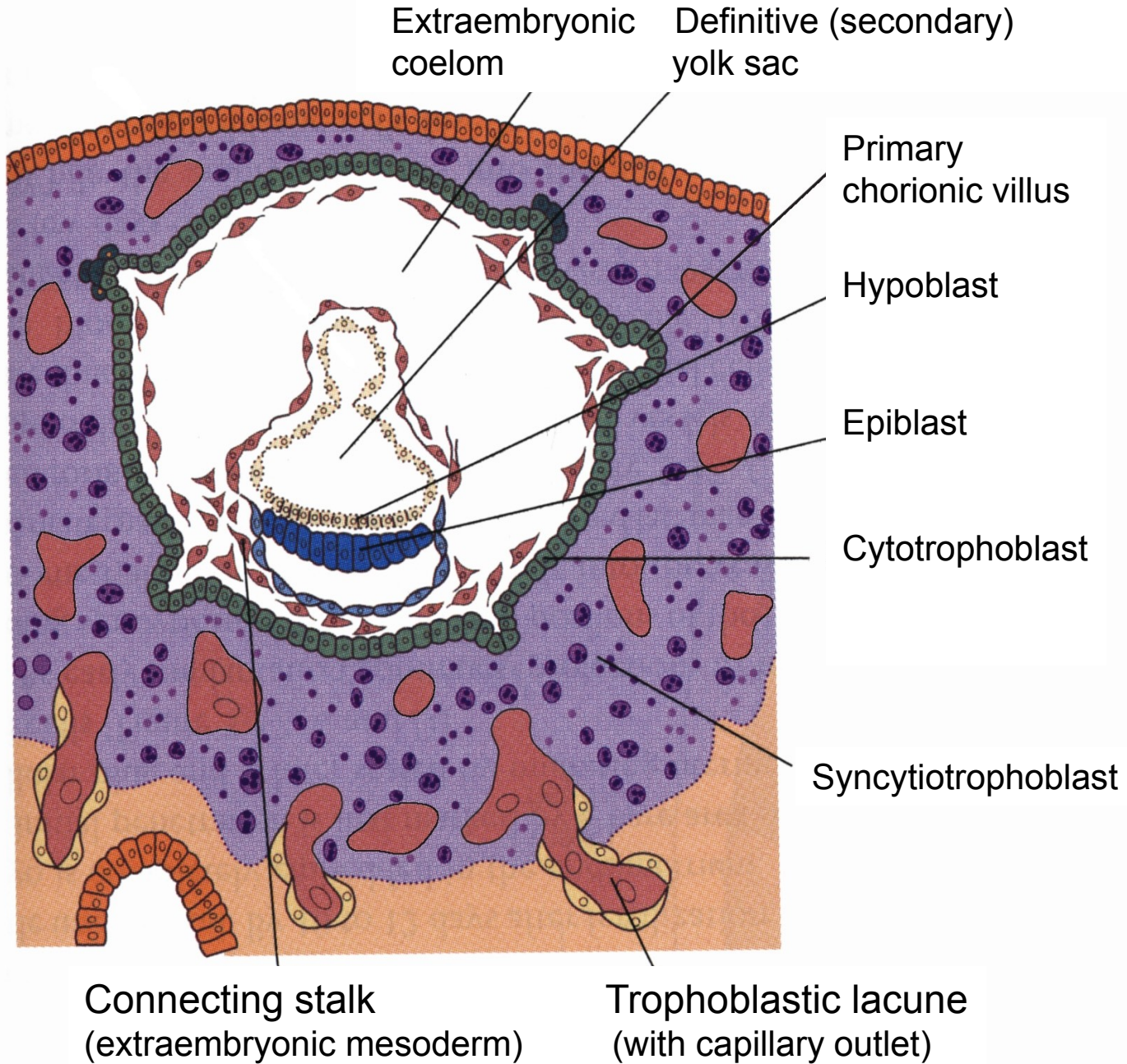
# IMPLANTATION – DAY 8 1/2



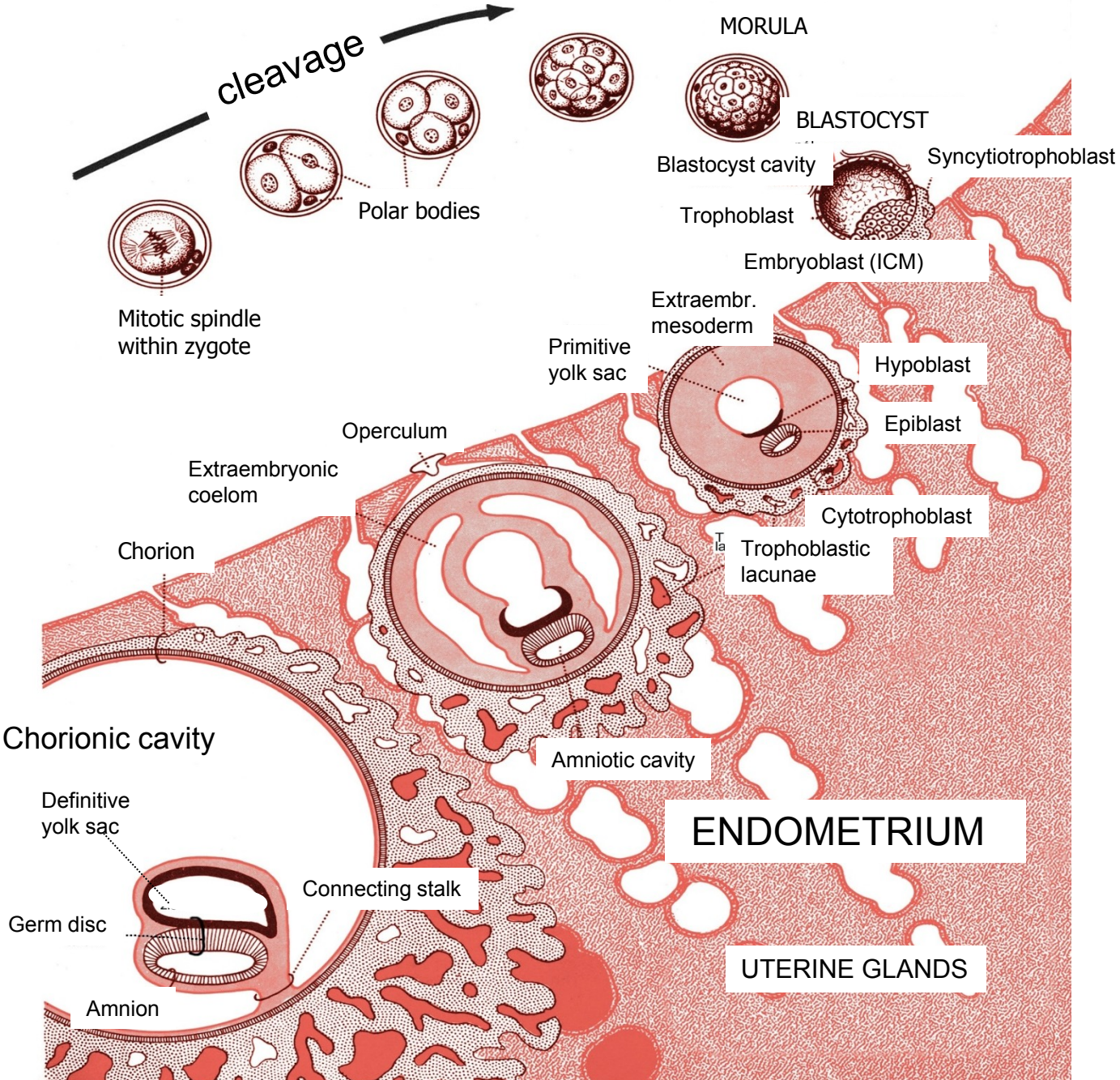
# IMPLANTATION – DAY 10



# IMPLANTATION – DAY 13



# CLEAVAGE AND IMPLANTATION



Chorionic villi

Chorionic cavity

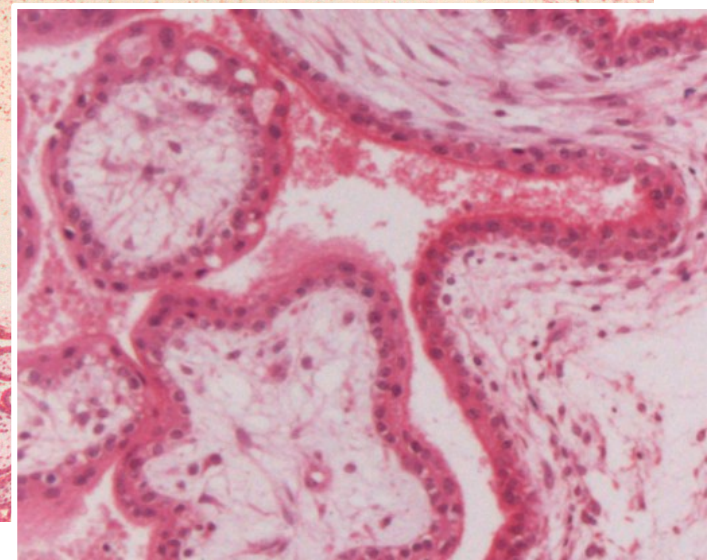
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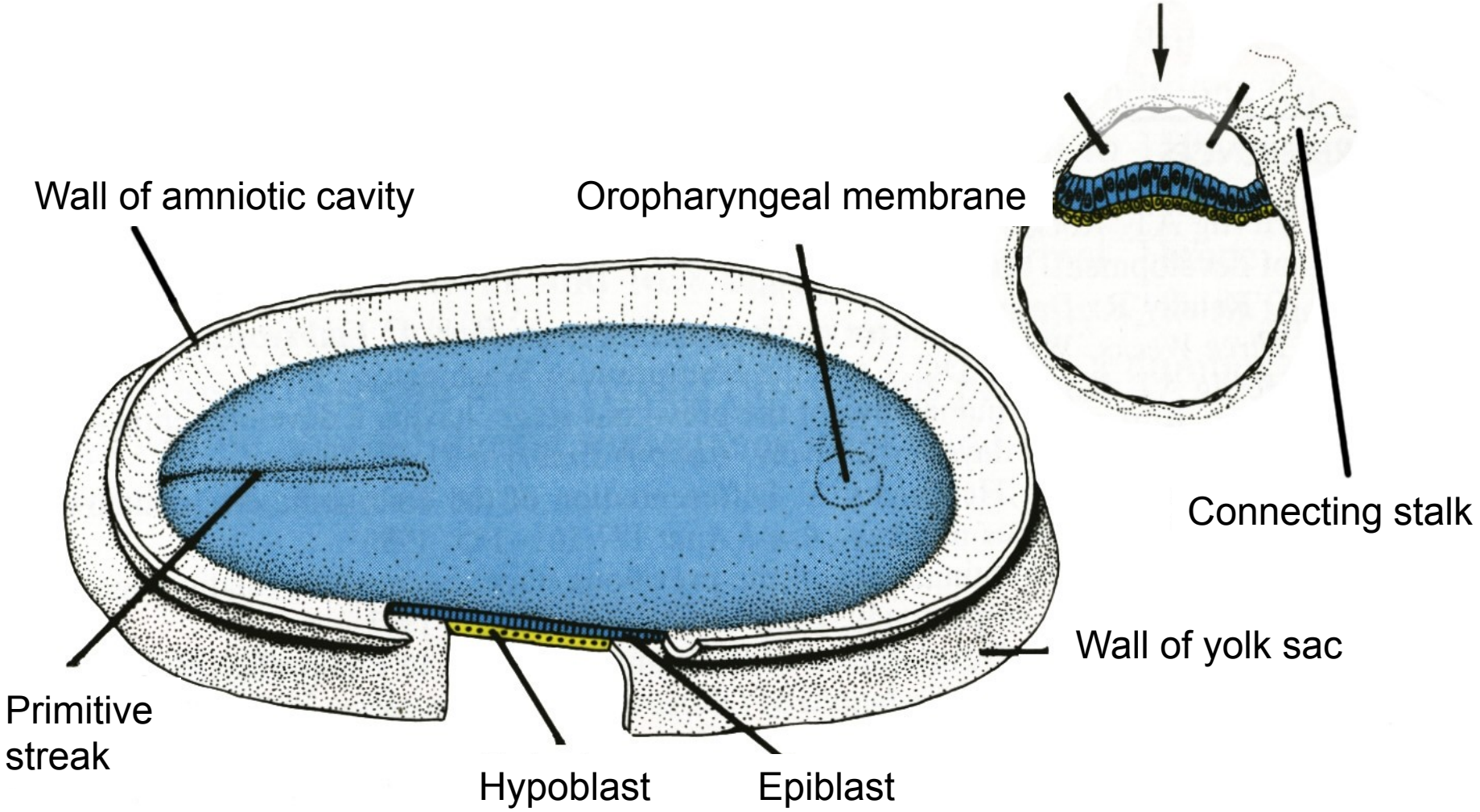
Connecting  
stalk

Trilaminar germ disc

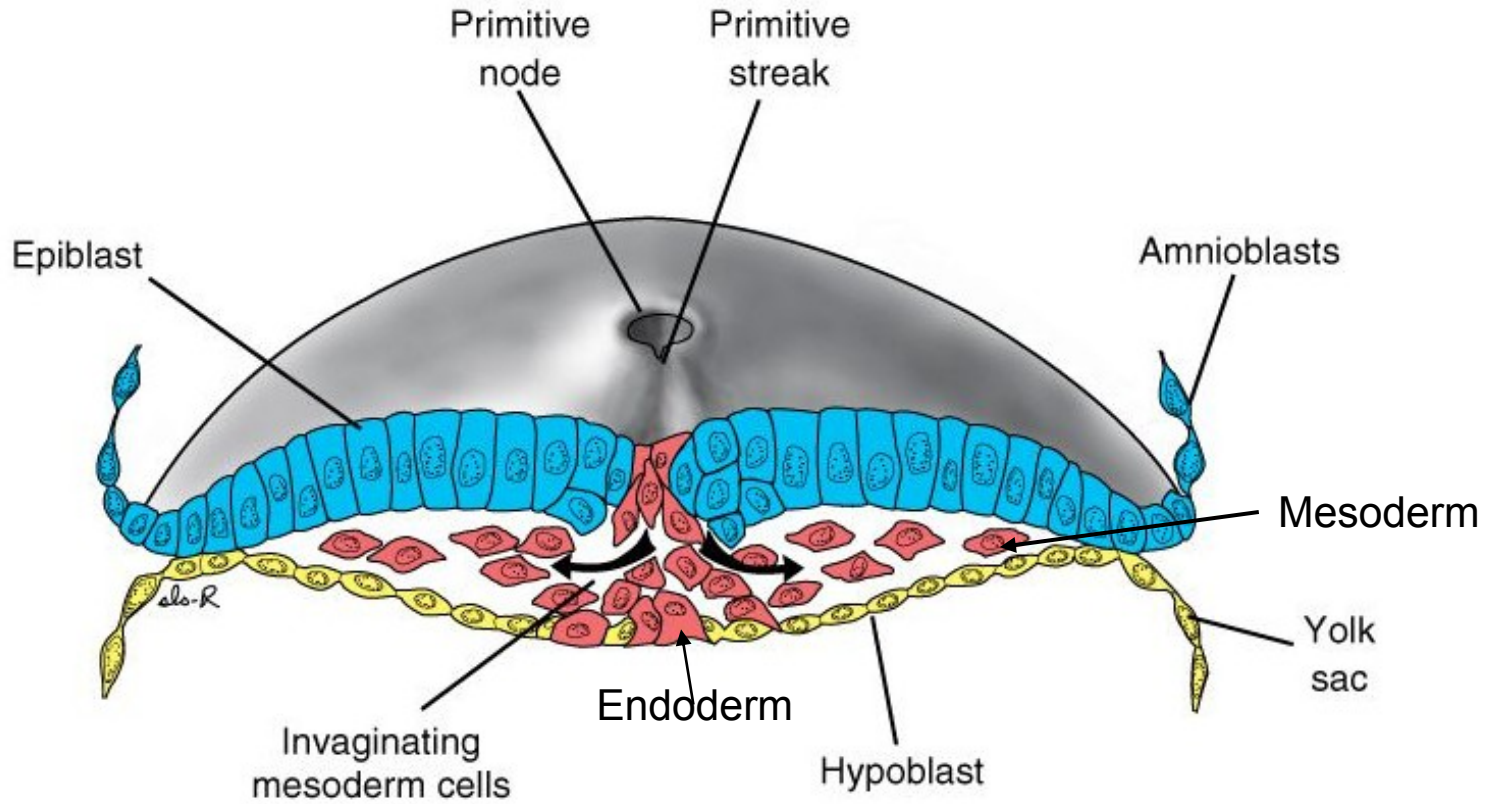
Extraembryonic mesoderm



# DORSAL SIDE OF GERM DISC – DAY 14



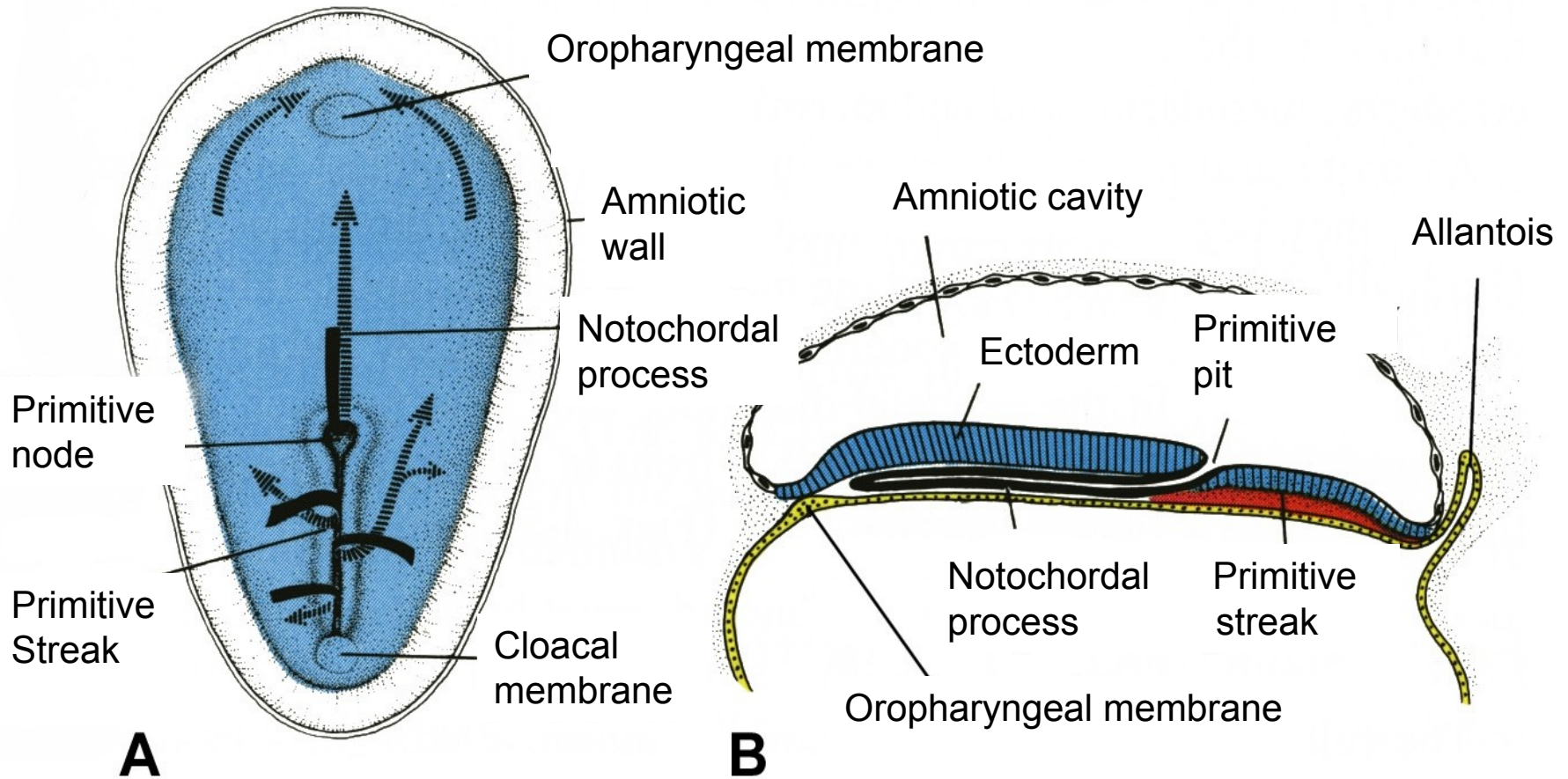
# Germ disc day 16



# GERM DISC - DAY 16

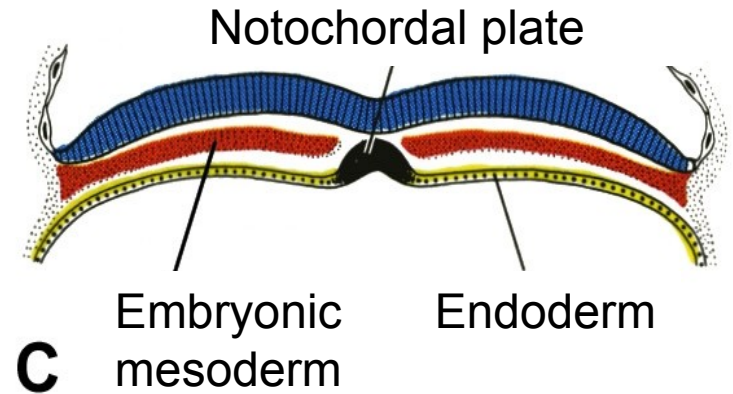
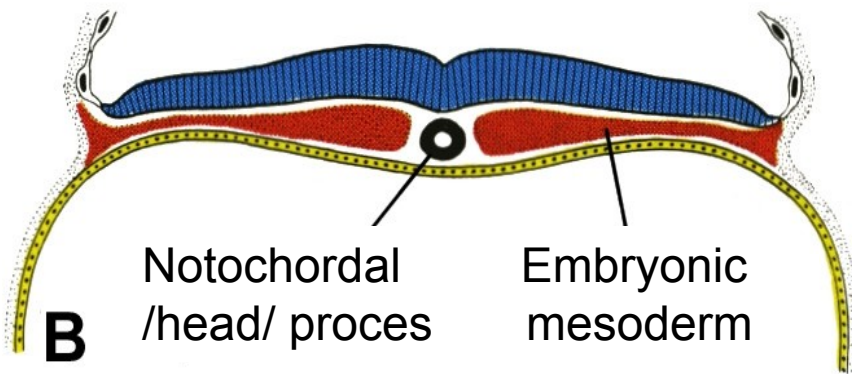
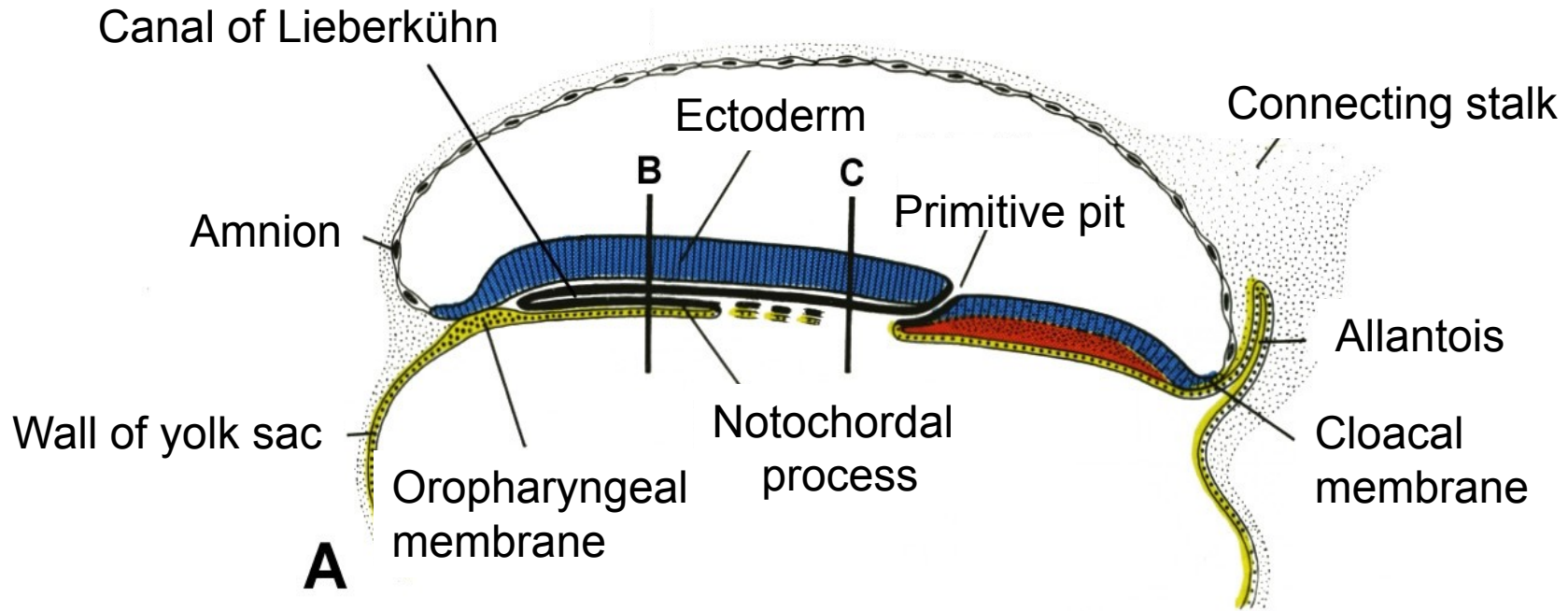
A – view on dorsal side

B – longitudinal section

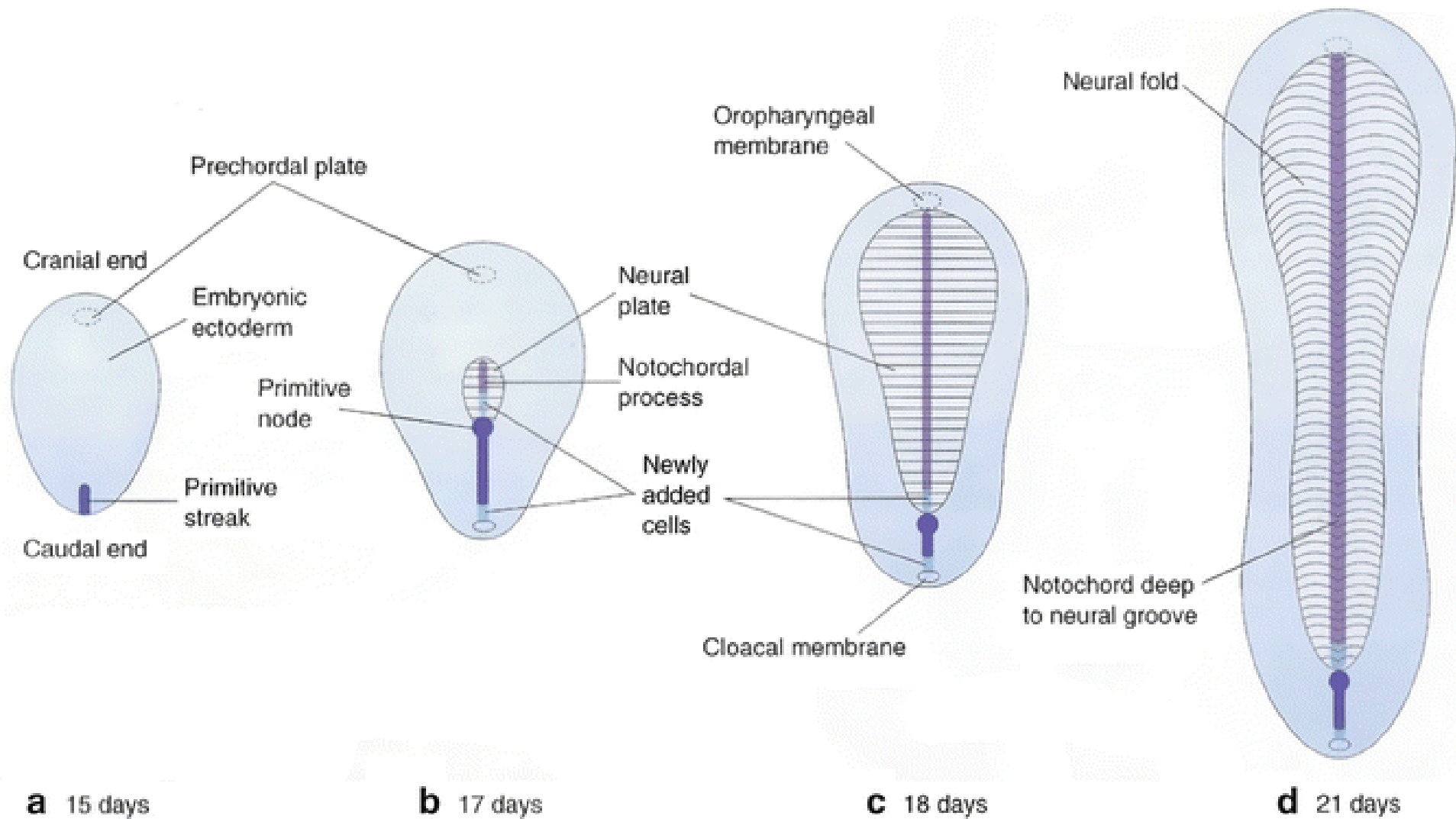




# GERM DISC - DAY 17



**A** – longitudinal section, **B**, **C** – transversal sections



# GENERAL EMBRYOLOGY I

- Set of embryological schemes I
- Atlas of Cytology and Embryology – pg. 71 – 79
  
- Discussion
- 3 embryological schemes according to teacher instructions