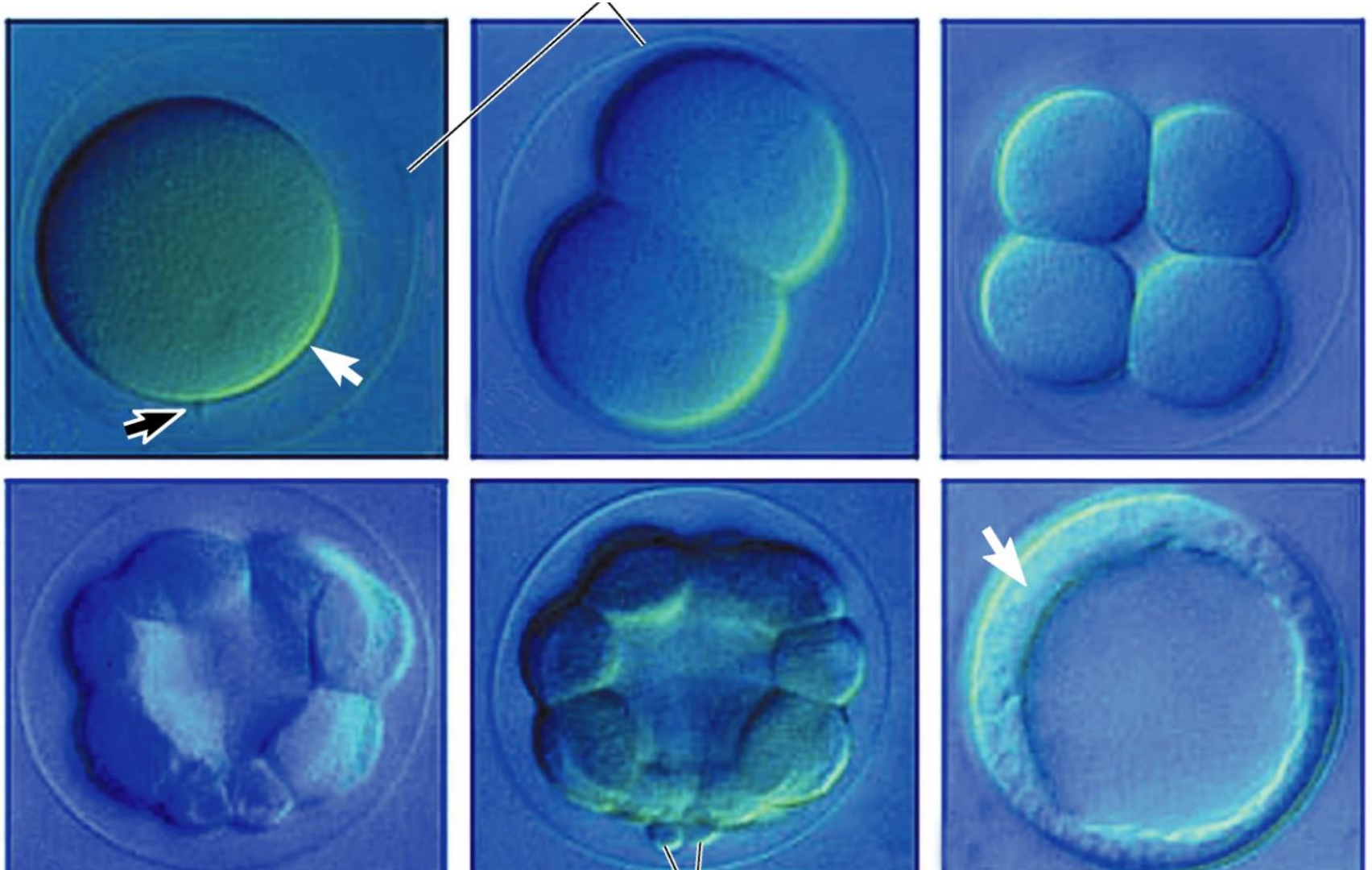
# Laboratorio II riccio di mare



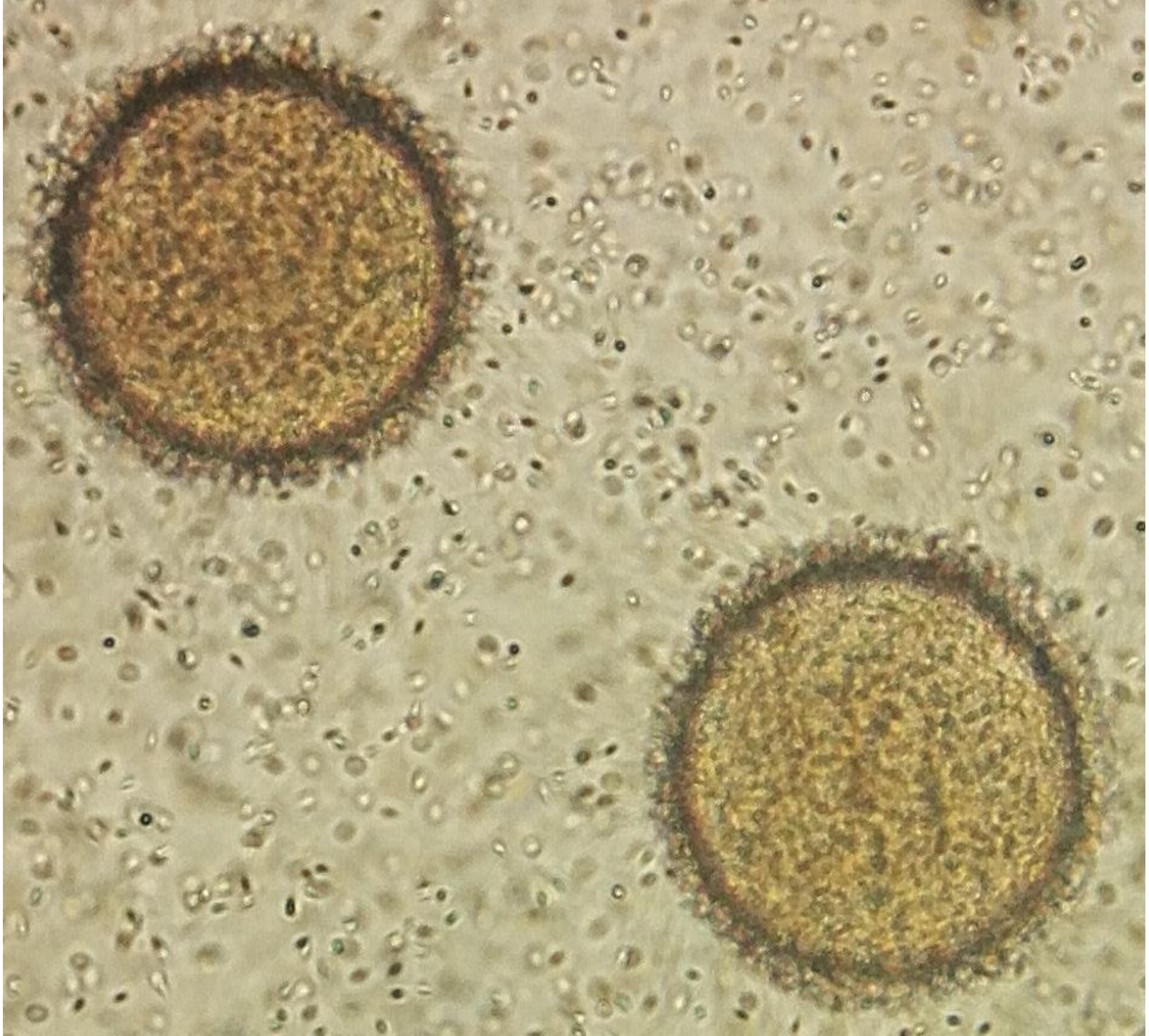
# Fecondazione

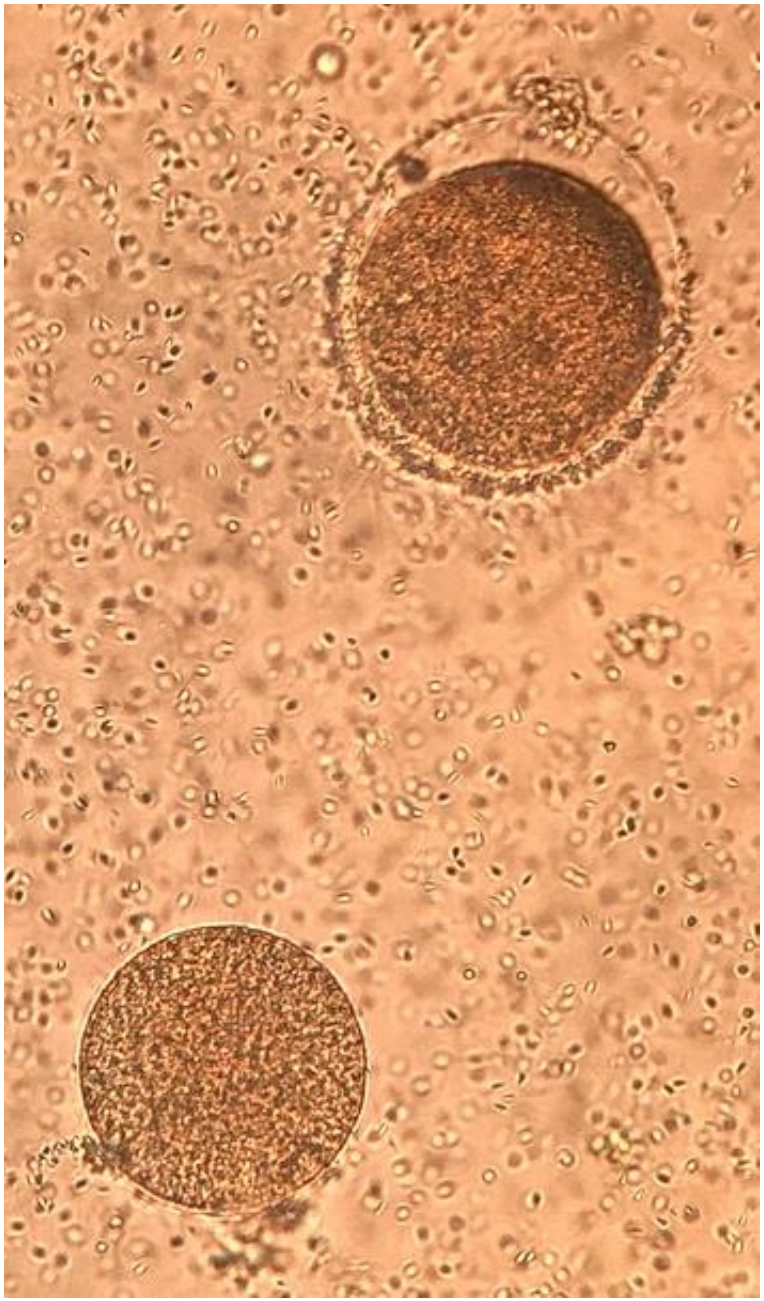
- Produzione dei gameti
- Fecondazione
- Osservazione della membrana di fecondazione

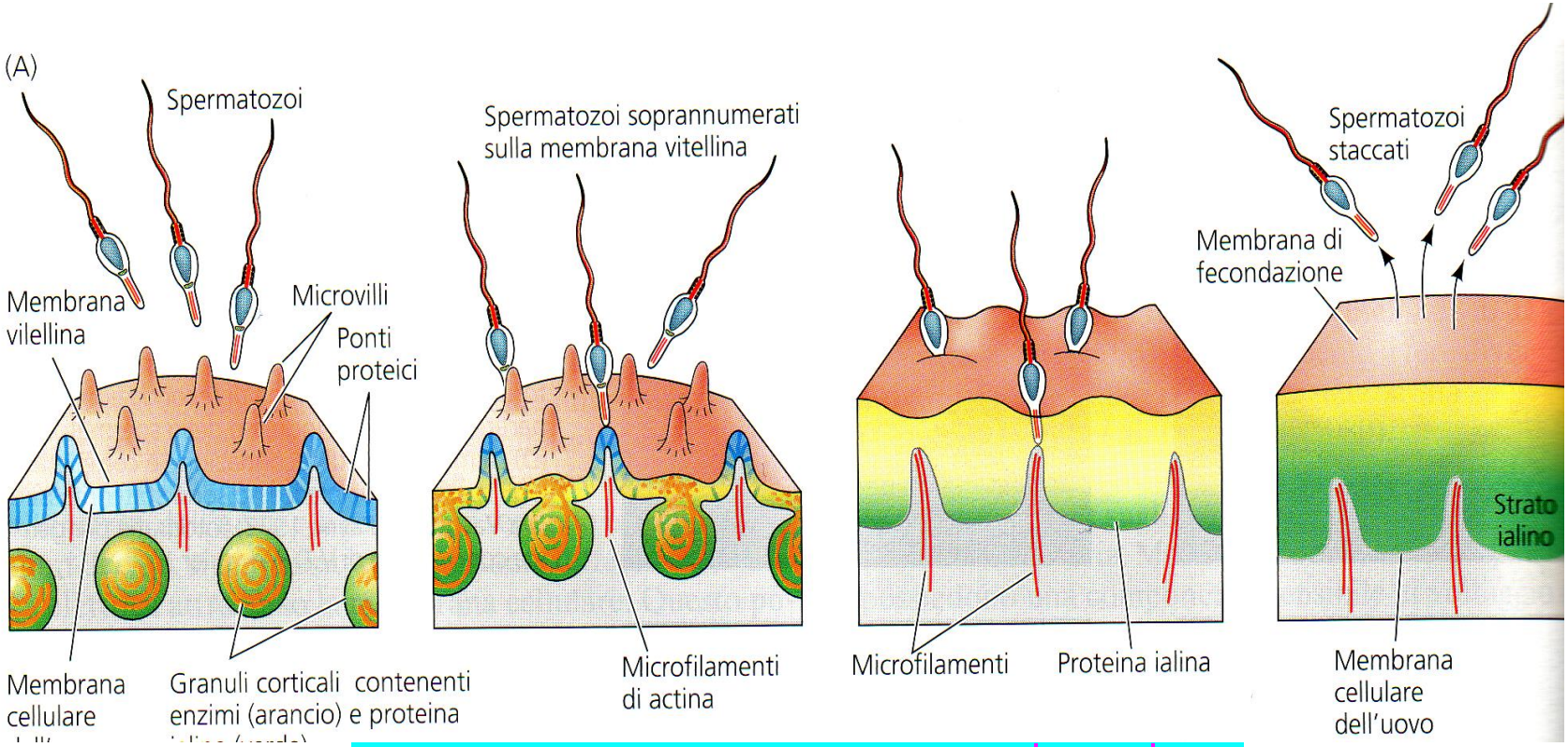

alamy stock photo
ER55YA
www.alamy.com

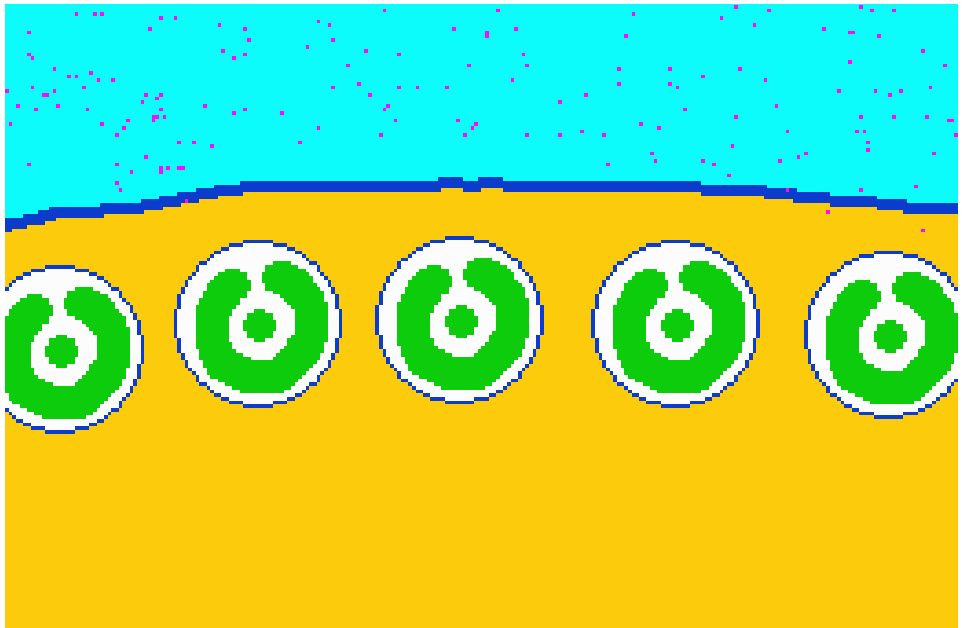

Femmina

Maschio

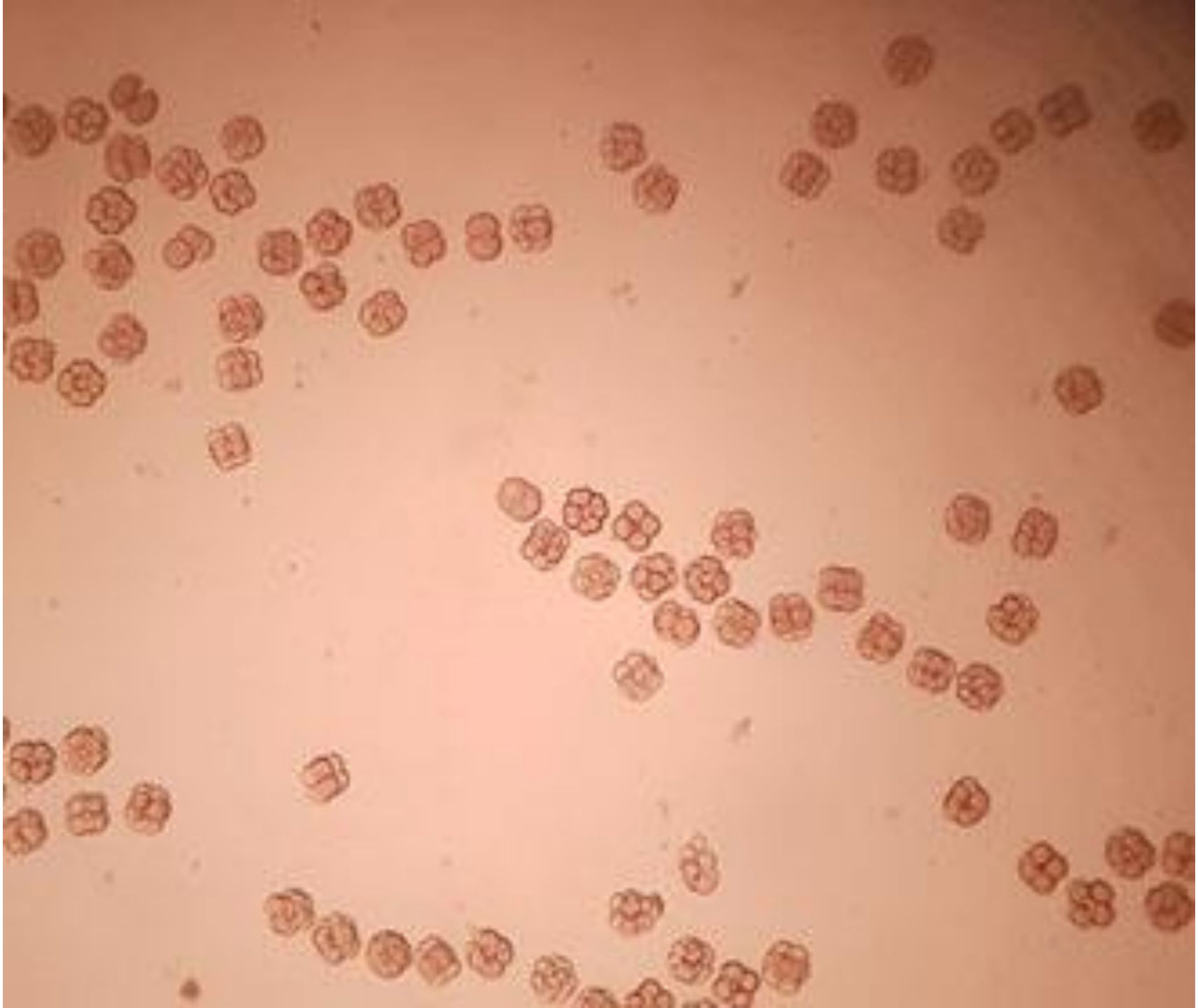


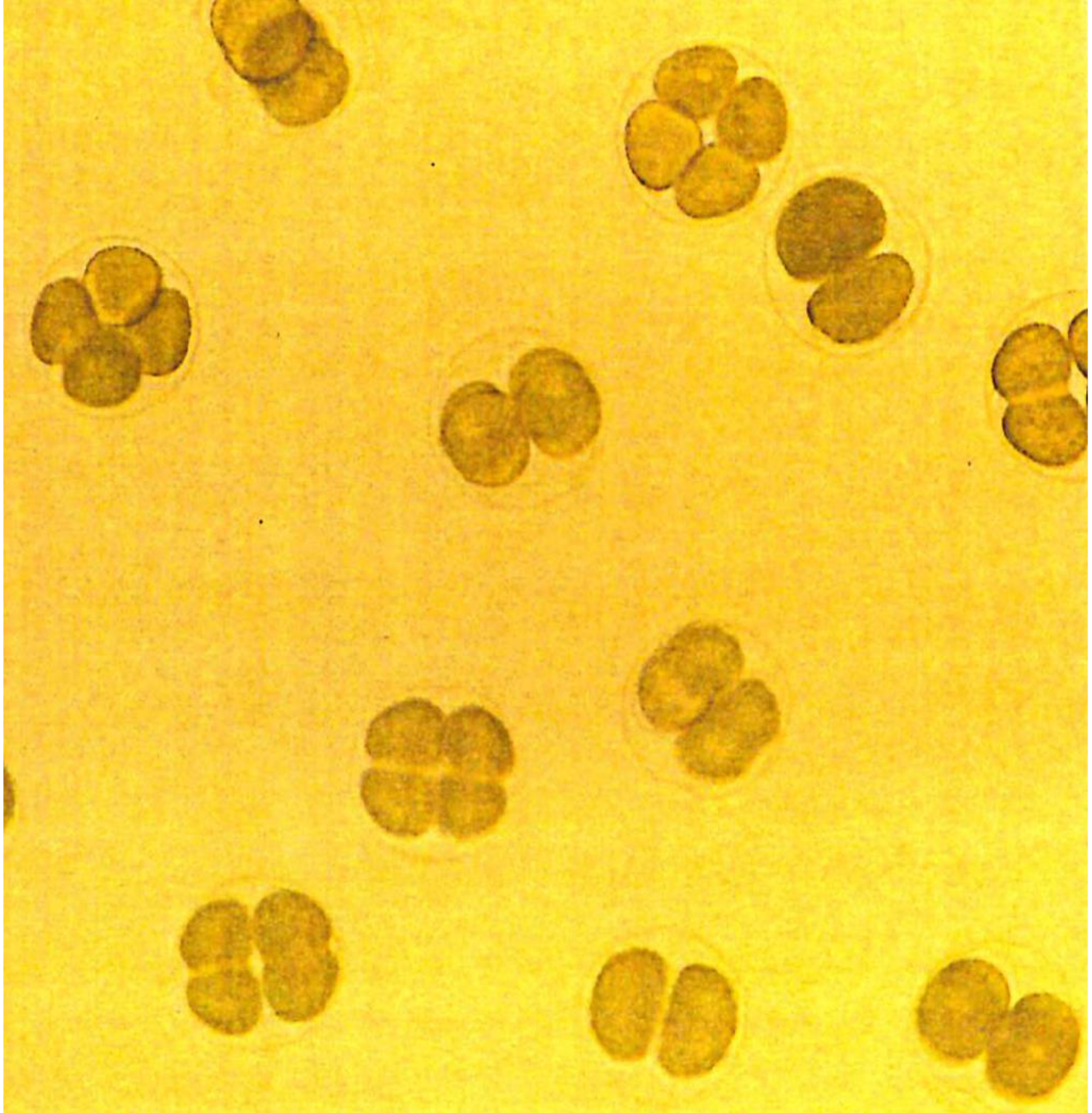



(A)
Spermatozoi
Membrana vilellina
Microvilli
Ponti proteici
Membrana cellulare
Granuli corticali contenenti enzimi (arancio) e proteina
Spermatozoi soprannumerati sulla membrana vitellina
Microfilamenti di actina
Microfilamenti
Proteina ialina
Spermatozoi staccati
Membrana di fecondazione
Strato ialino
Membrana cellulare dell'uovo



# Segmentazione





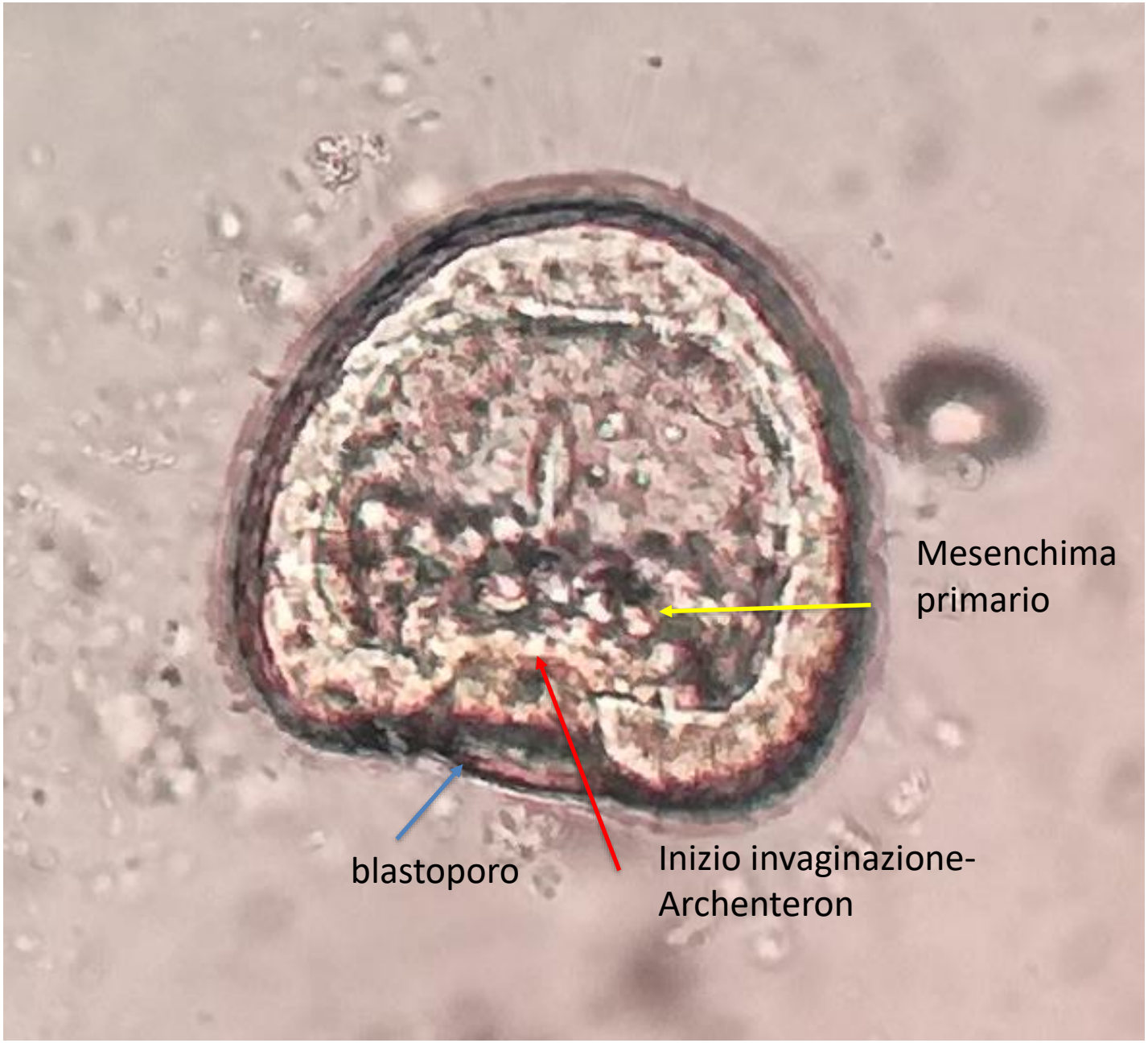

mesomeri
macromeri
micromeri

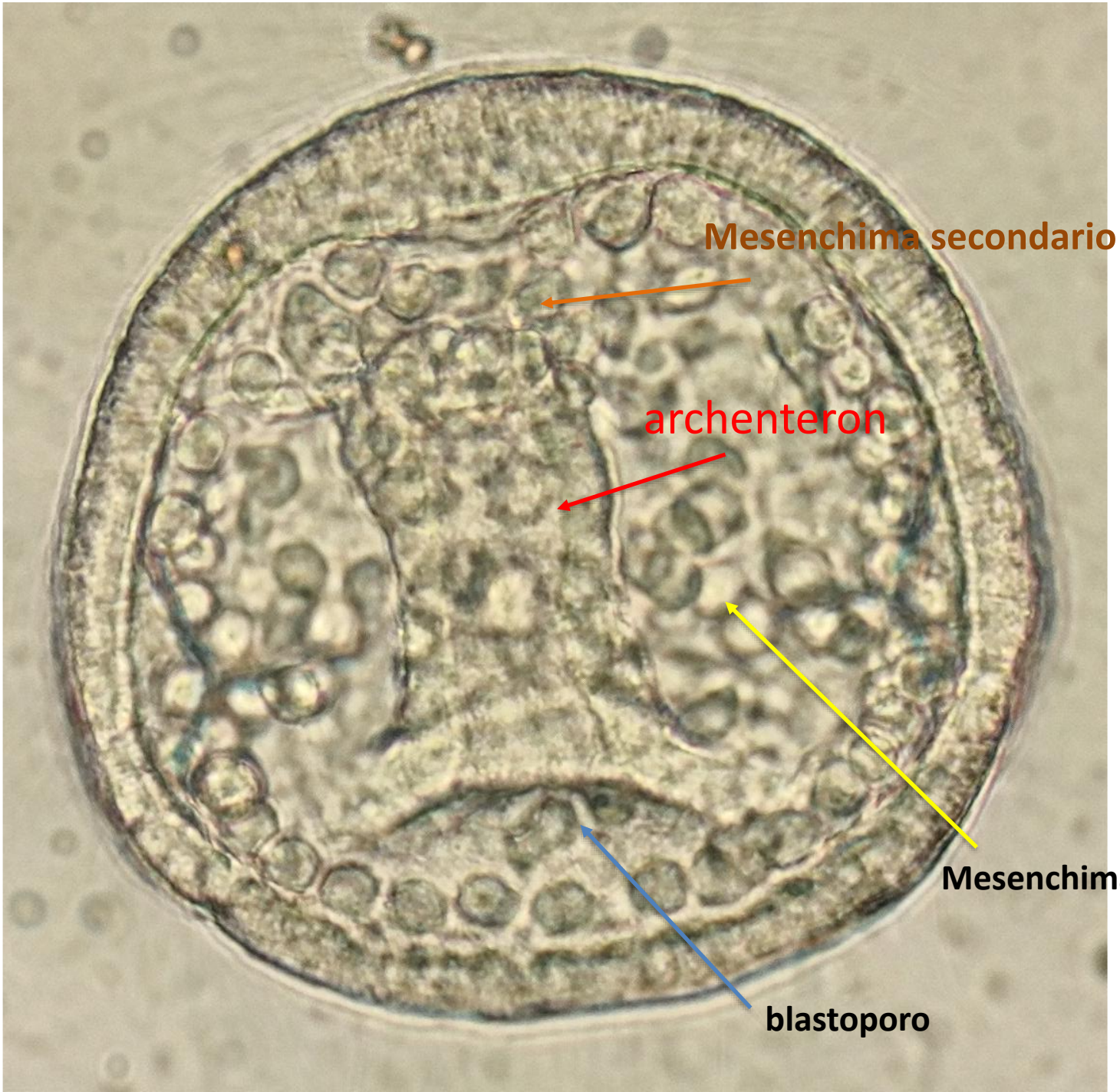

Blastula
mesenchimale

# Gastrulazione

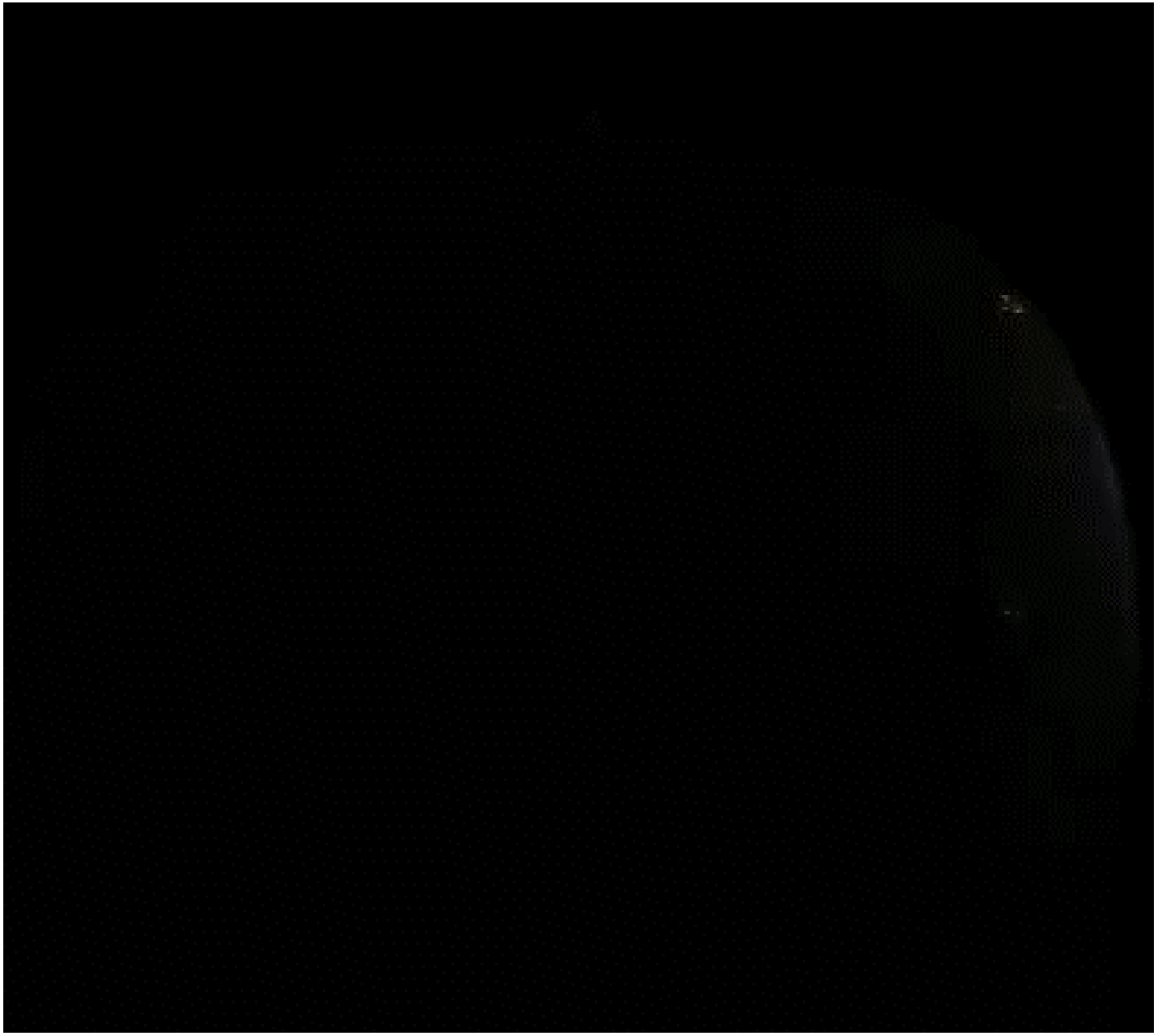

Ingressione dei micromeri


blastoporo
Inizio invaginazione


Mesenchima primario
blastoporo
Inizio invaginazione-Archenteron


Mesenchima secondario
archenteron
Mesenchima primario
blastoporo

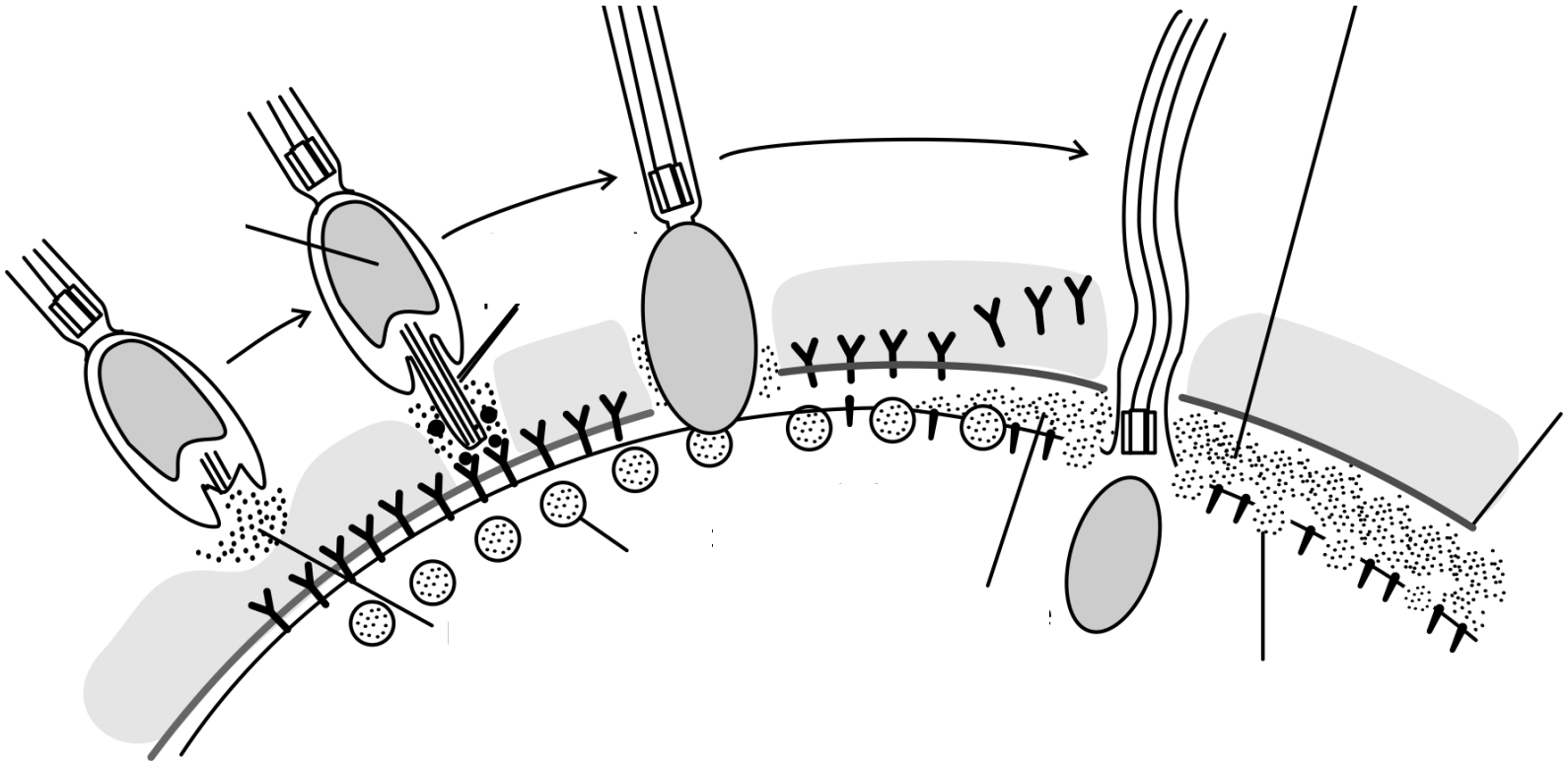
# Inizio formazione della larva Pluteo

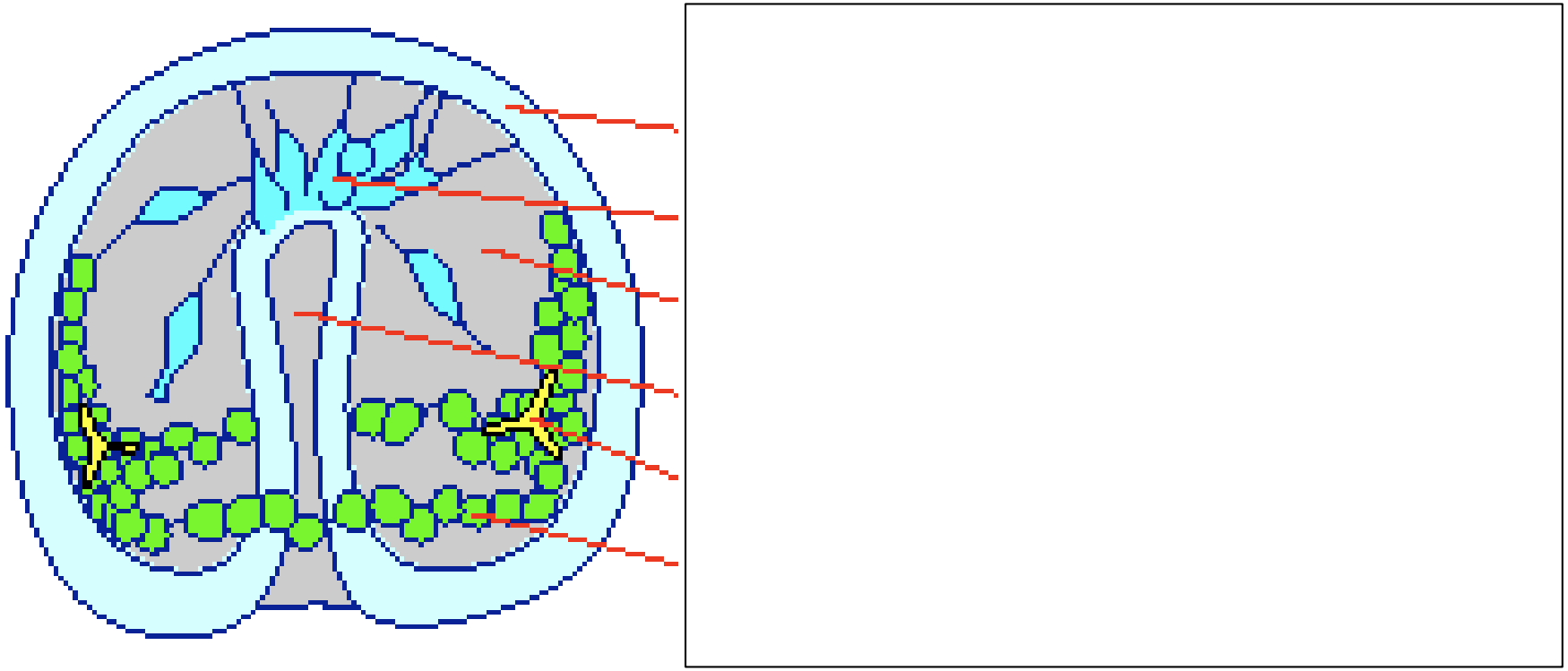


https://www.youtube.com/watch?v=NXX578SYE4E

https://www.youtube.com/watch?v=LKaam4zW0Uk

https://www.youtube.com/watch?v=JQbWdaYmvhI





**Cortical reaction.** Fusion of the gamete membranes triggers an increase of $Ca^{+2}$ in the egg's cytosol, causing cortical granules in the egg to fuse with the plasma membrane and discharge their contents. This leads to swelling of the vitelline layer and clipping of sperm-binding receptors. The resulting **fertilization envelope** is the **slow block to polyspermy.**

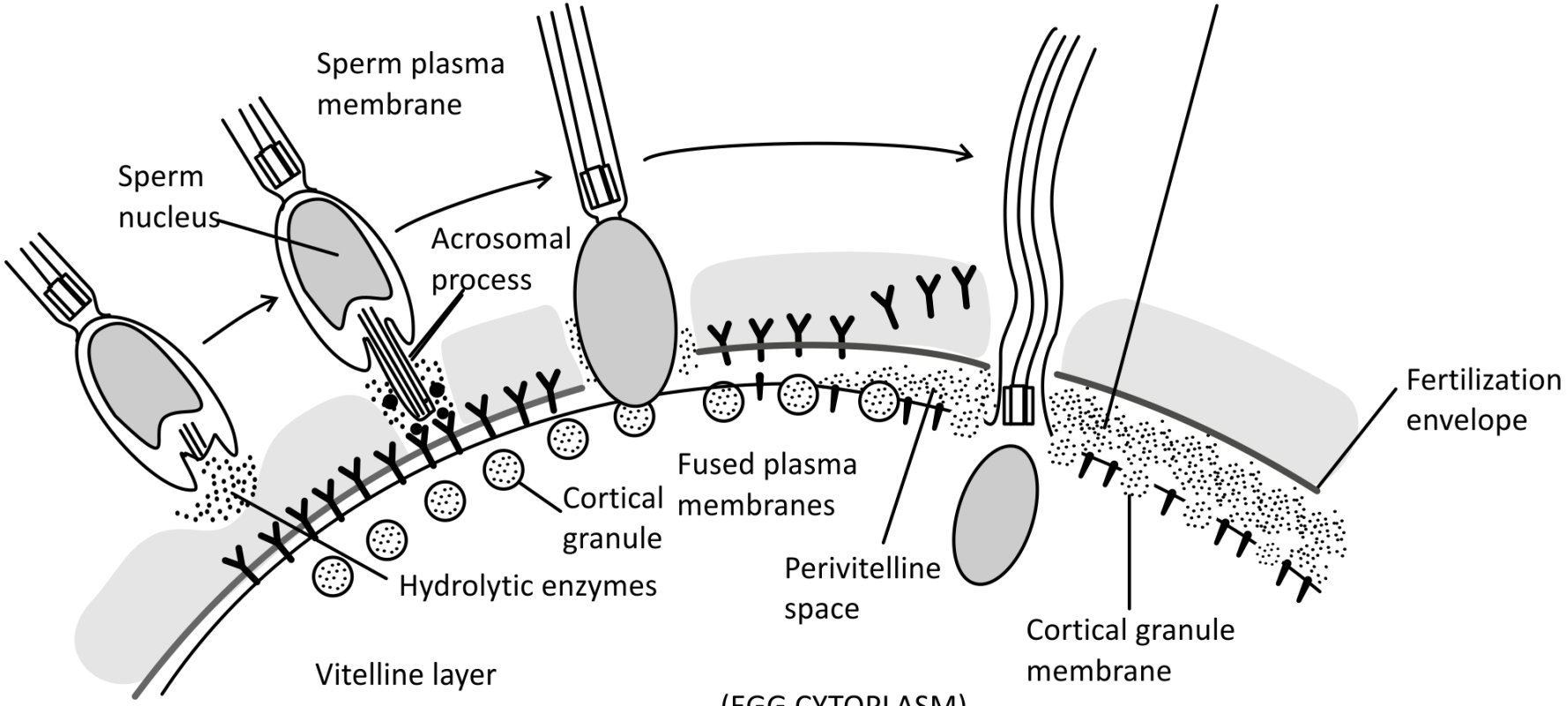
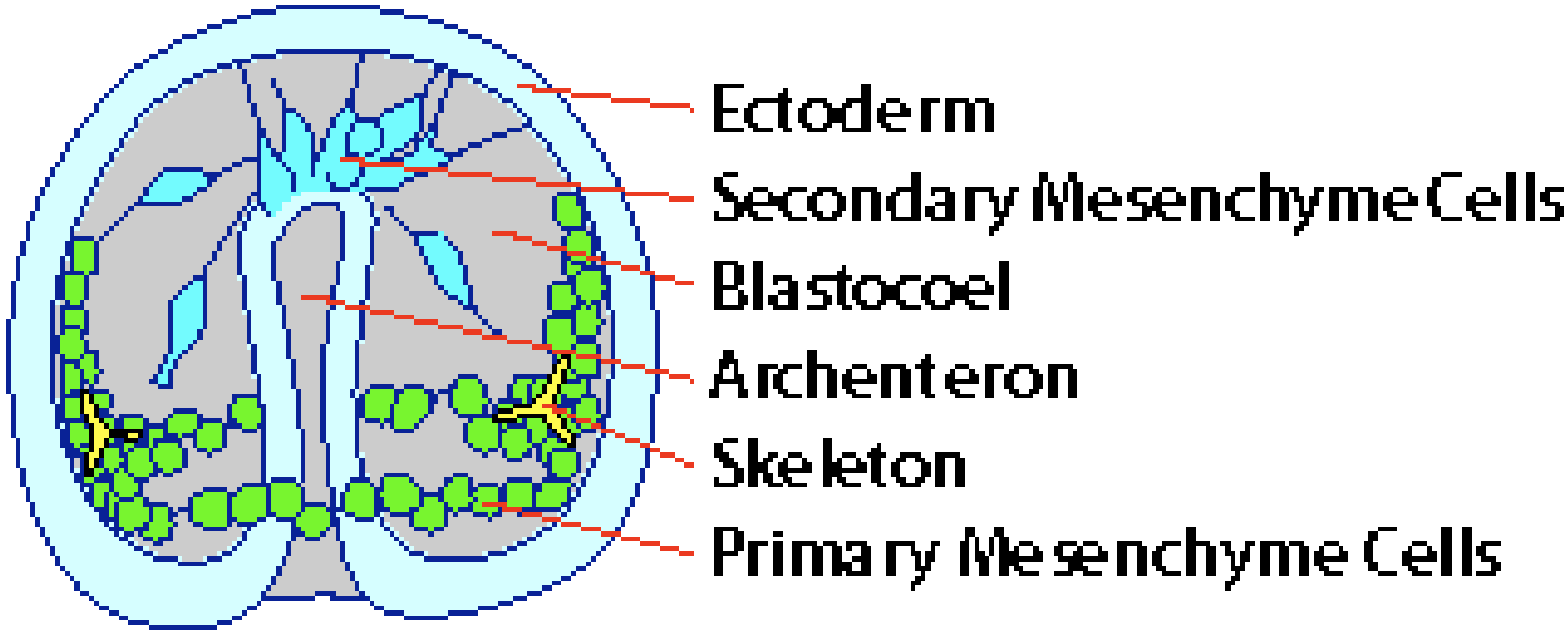



Fig. : Cortical granule reaction


Ectoderm
Secondary Mesenchyme Cells
Blastocoel
Archenteron
Skeleton
Primary Mesenchyme Cells