

PRAKTIKUM REPRODUKSI & EMBRIOLOGI (BLOK 13)

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Budiman Hartono

Adit Widodo Santoso

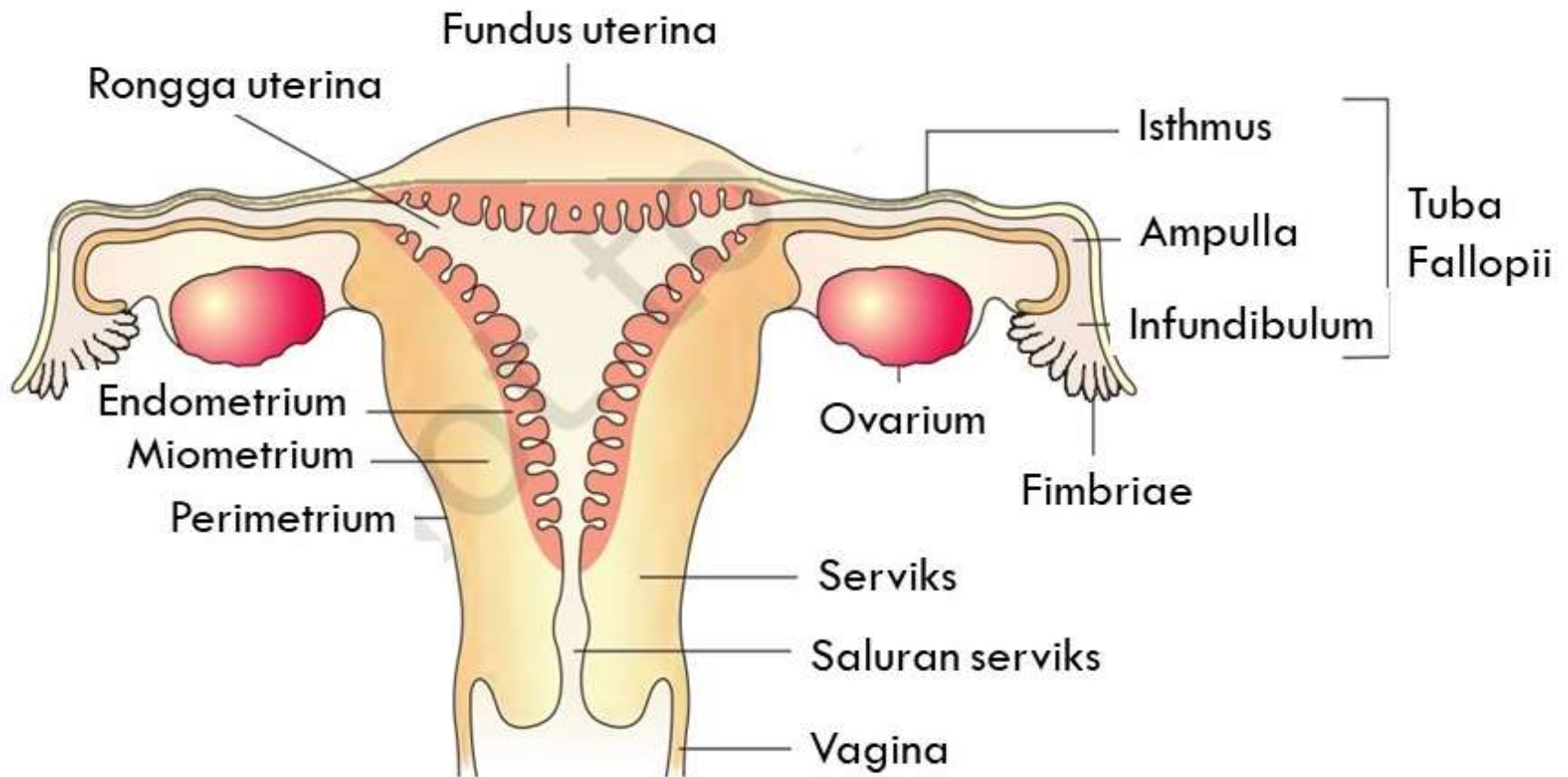


MATERI

- Organ Reproduksi
- Fertilisasi
- Tahap Pembelahan Setelah Fertilisasi
- Tahap Perkembangan Awal



ORGAN REPRODUKSI PEREMPUAN

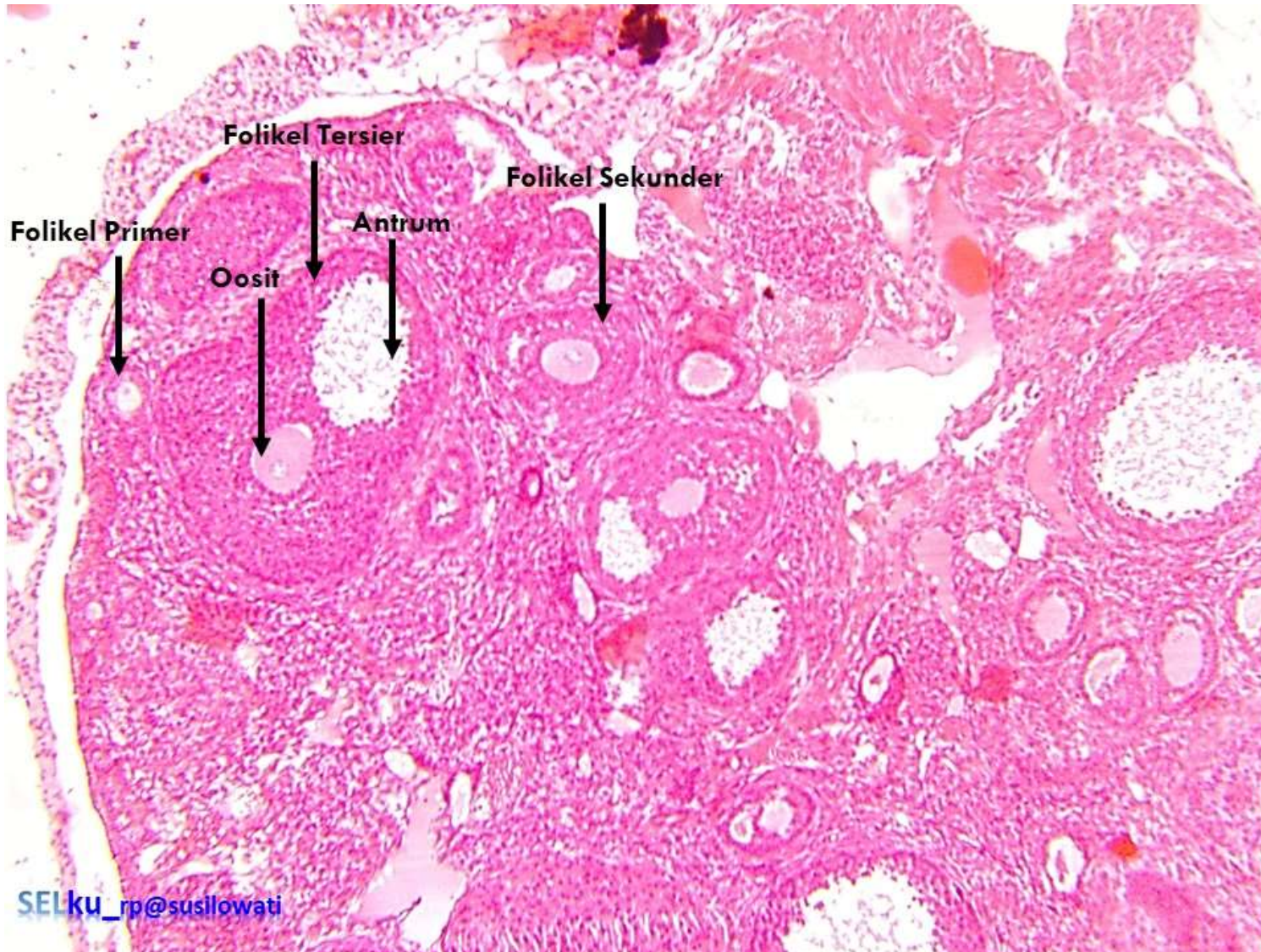


HISTOLOGI OVARIUM

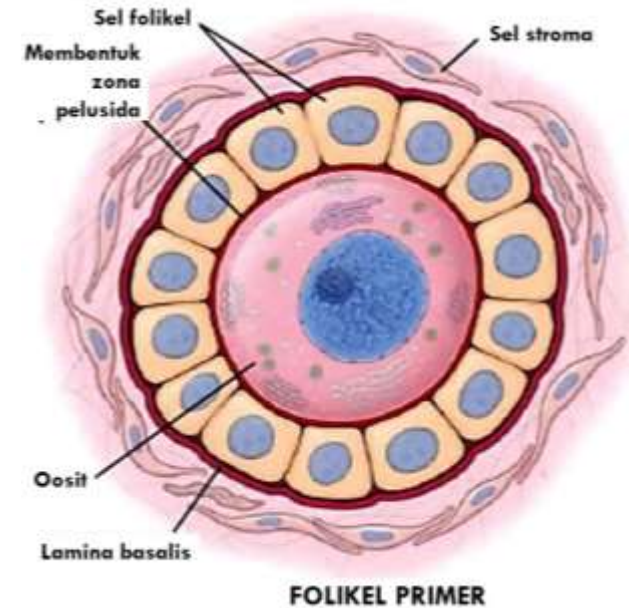
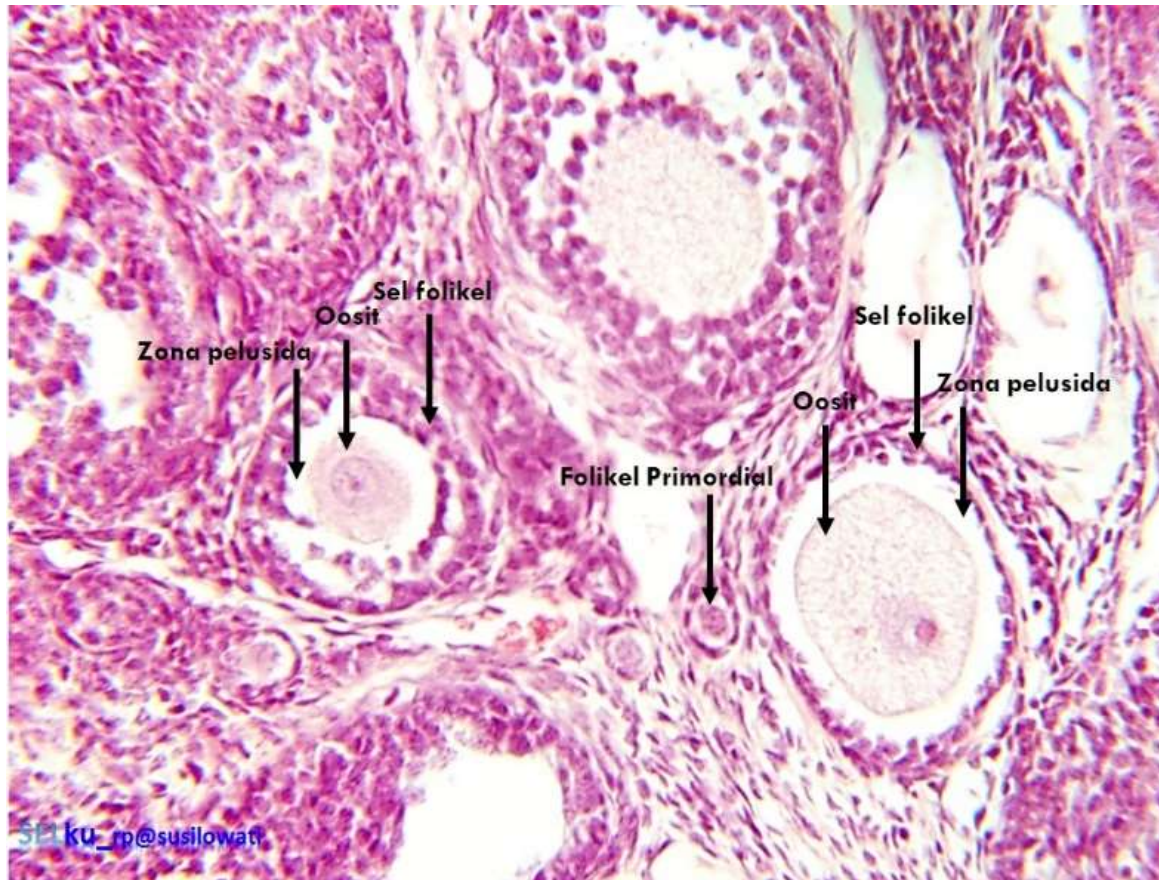
- **Folikel ovarium** dengan berbagai ukuran, masing-masing berisi satu **oosit**, terdapat di **stroma korteks**
- Oogenesis: folikel primordial, folikel primer, folikel sekunder, folikel tersier, folikel de Graaf
- Folikel de Graaf di dalam ovarium: dikelilingi oleh corona radiata
- Folikel de Graaf setelah ovulasi (di dalam tuba fallopii) dikelilingi oleh cumulus oophorus



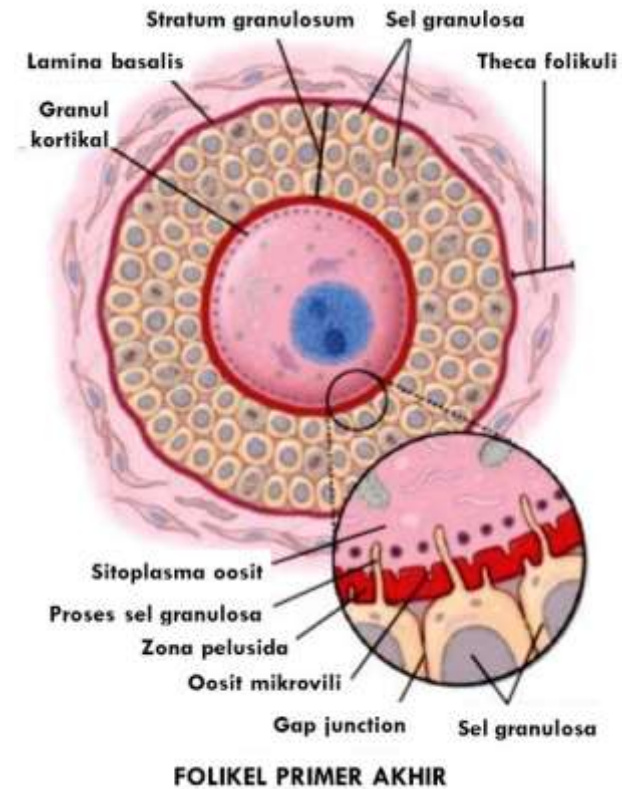
HISTOLOGI OVARIUM (HE, 40X)



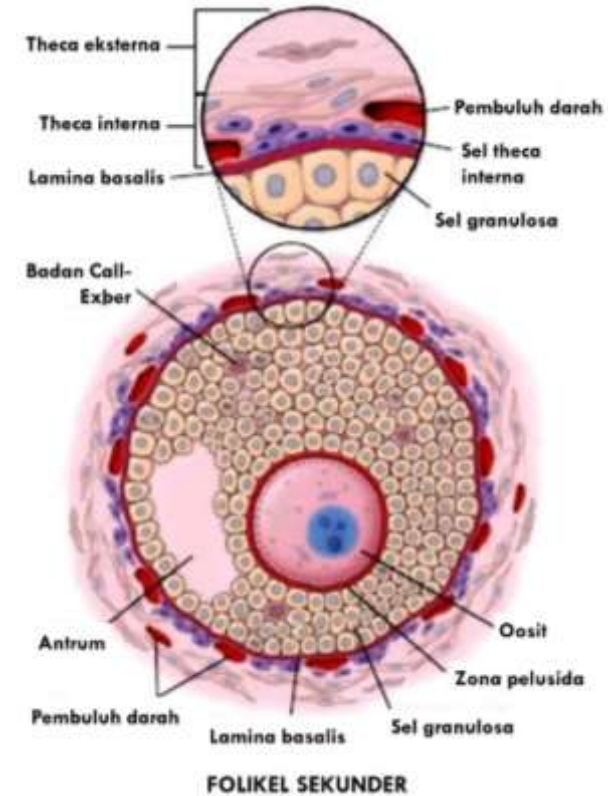
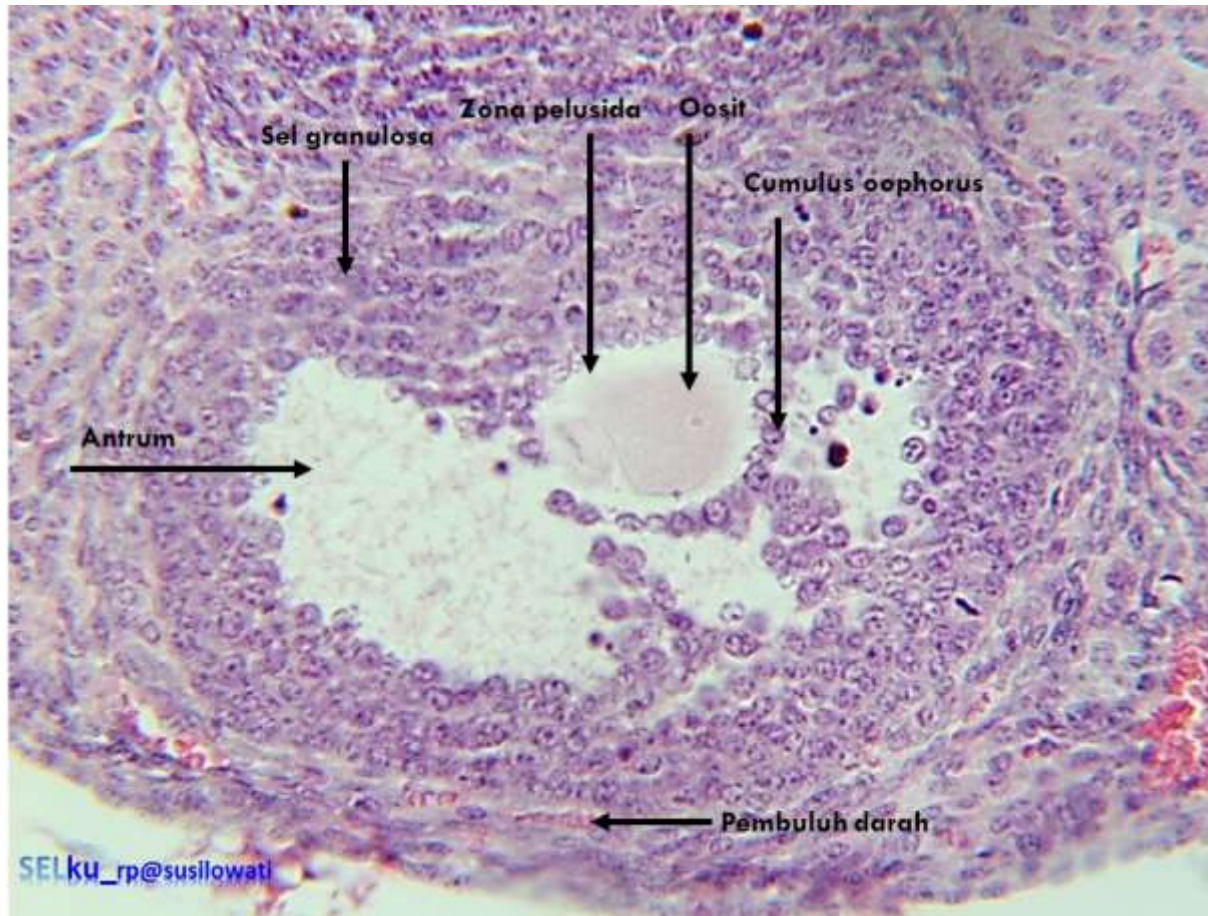
HISTOLOGI OVARIUM (HE, 100X): FOLIKEL PRIMER



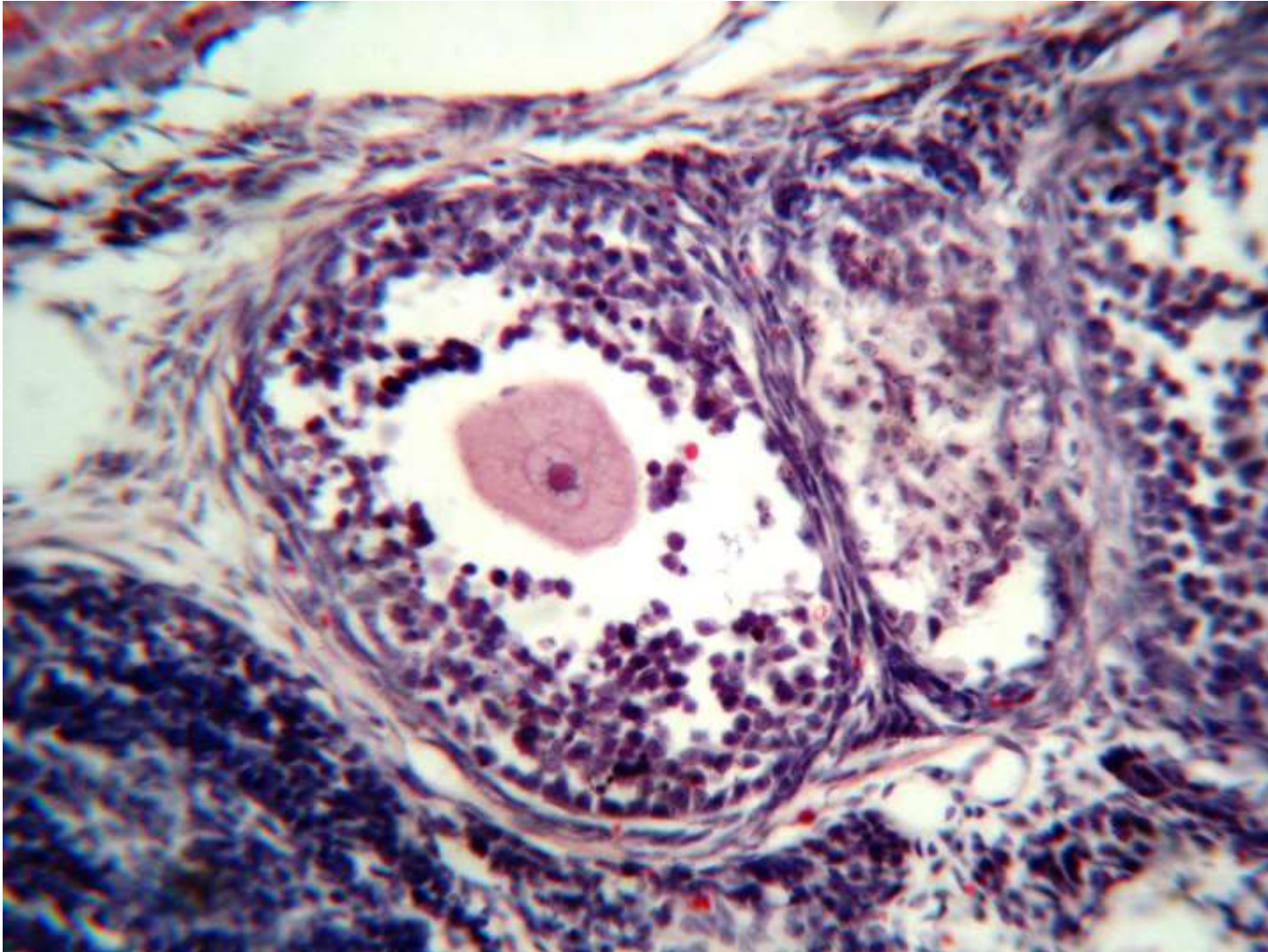
HISTOLOGI OVARIUM (HE, 100X): FOLIKEL PRIMER



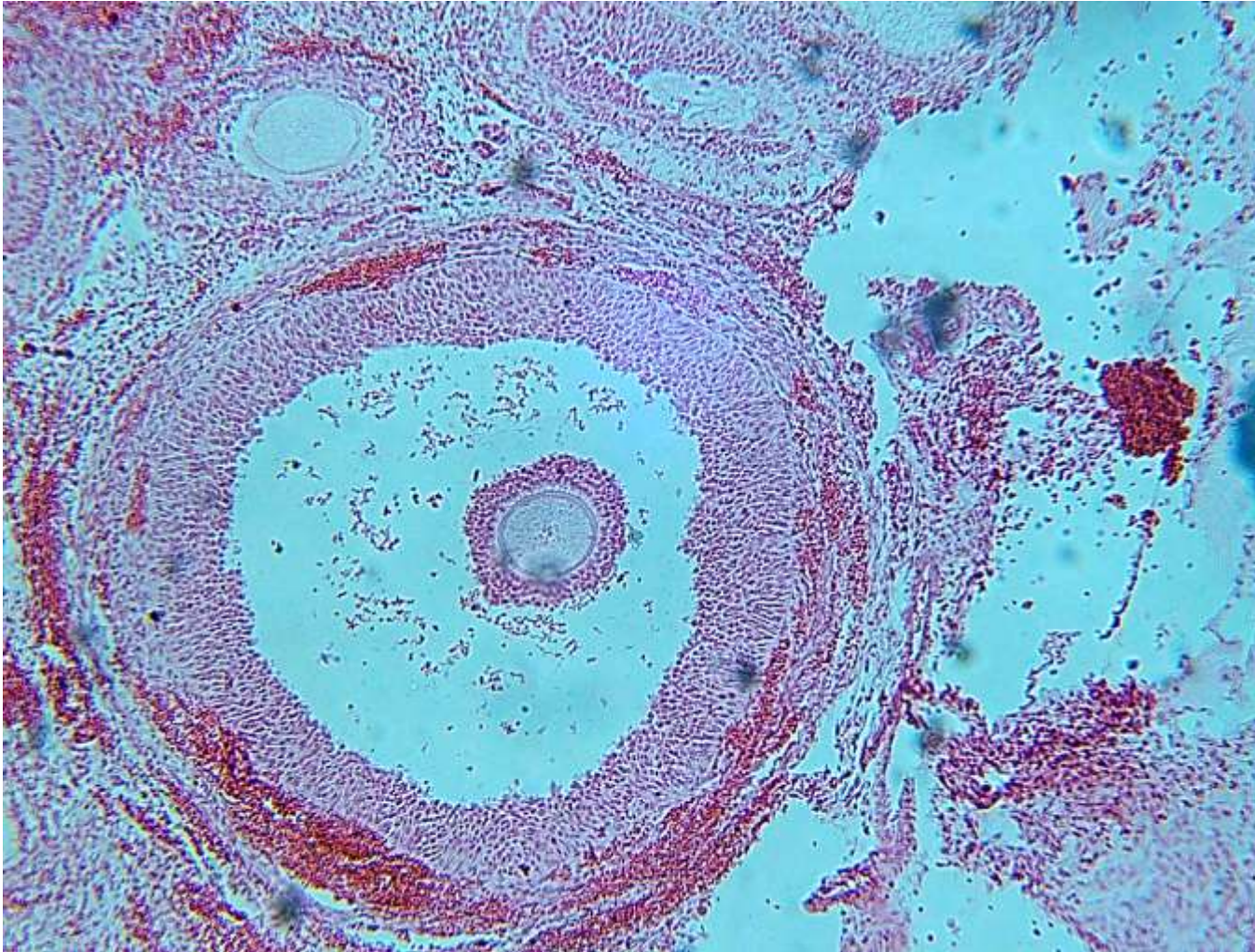
HISTOLOGI OVARIUM (HE, 100X): FOLIKEL SEKUNDER



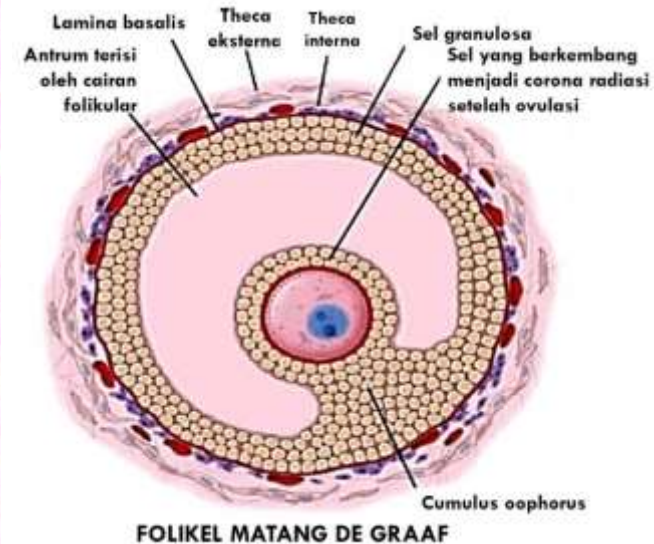
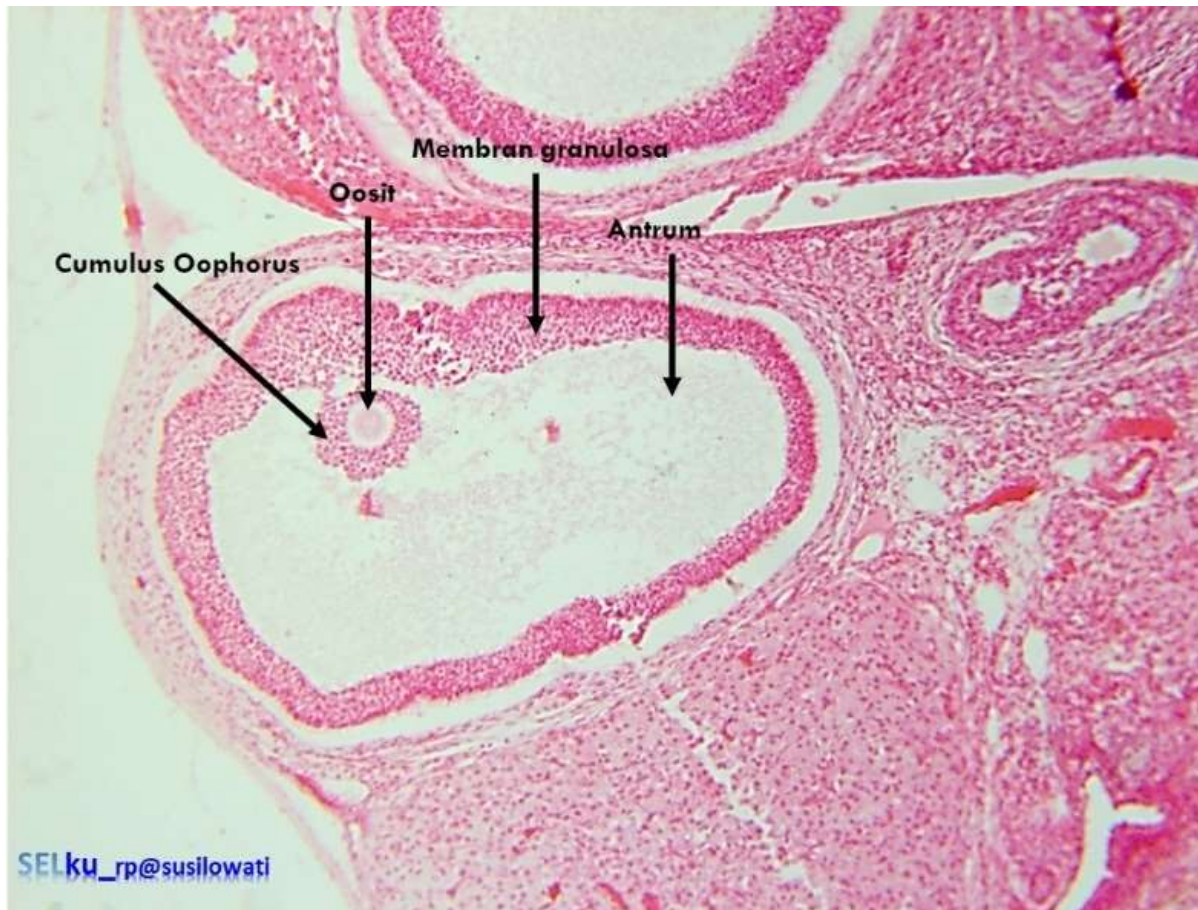
HISTOLOGI OVARIUM (HE, 100X): FOLIKEL TERSIER



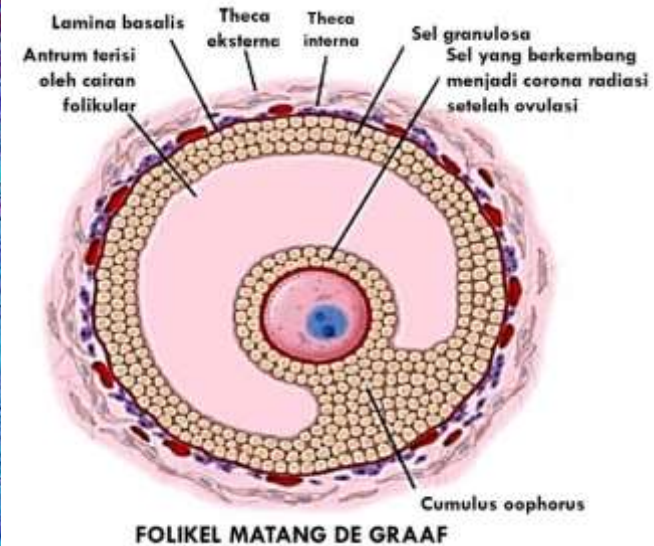
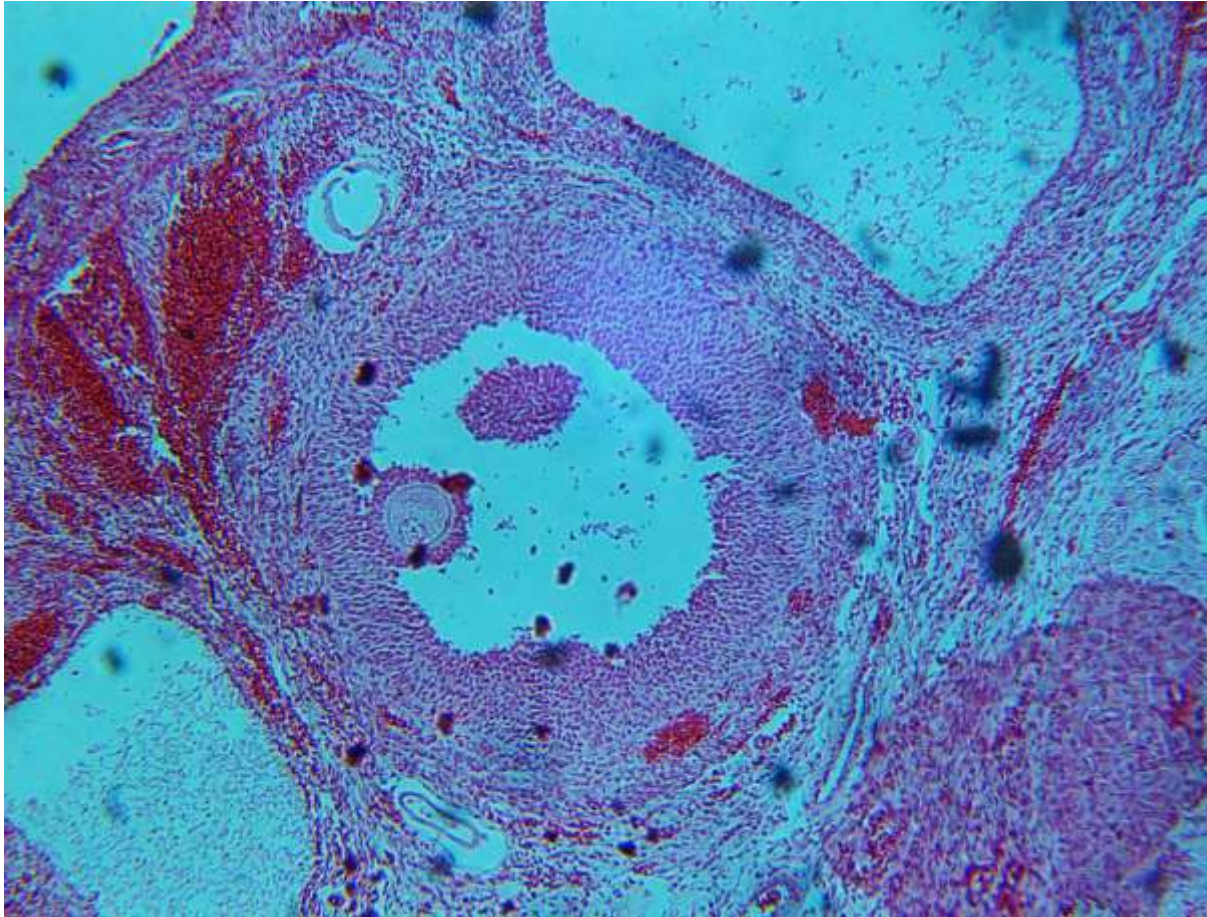
HISTOLOGI OVARIUM (HE, 100X): FOLIKEL TERSIER



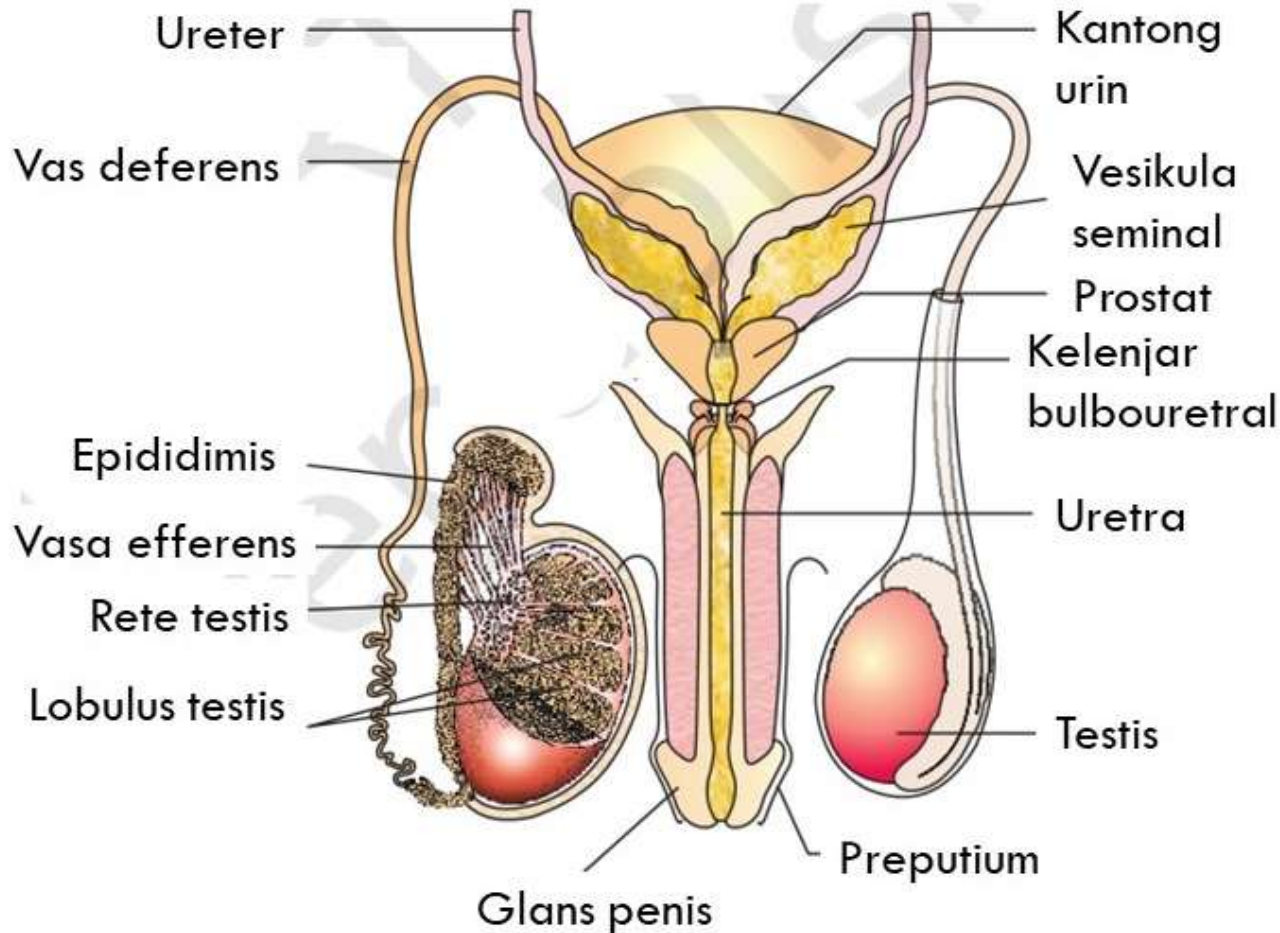
HISTOLOGI OVARIUM (HE, 100X): FOLIKEL DE GRAAF



HISTOLOGI OVARIUM (HE, 100X): FOLIKEL DE GRAAF



ORGAN REPRODUKSI LAKI-LAKI

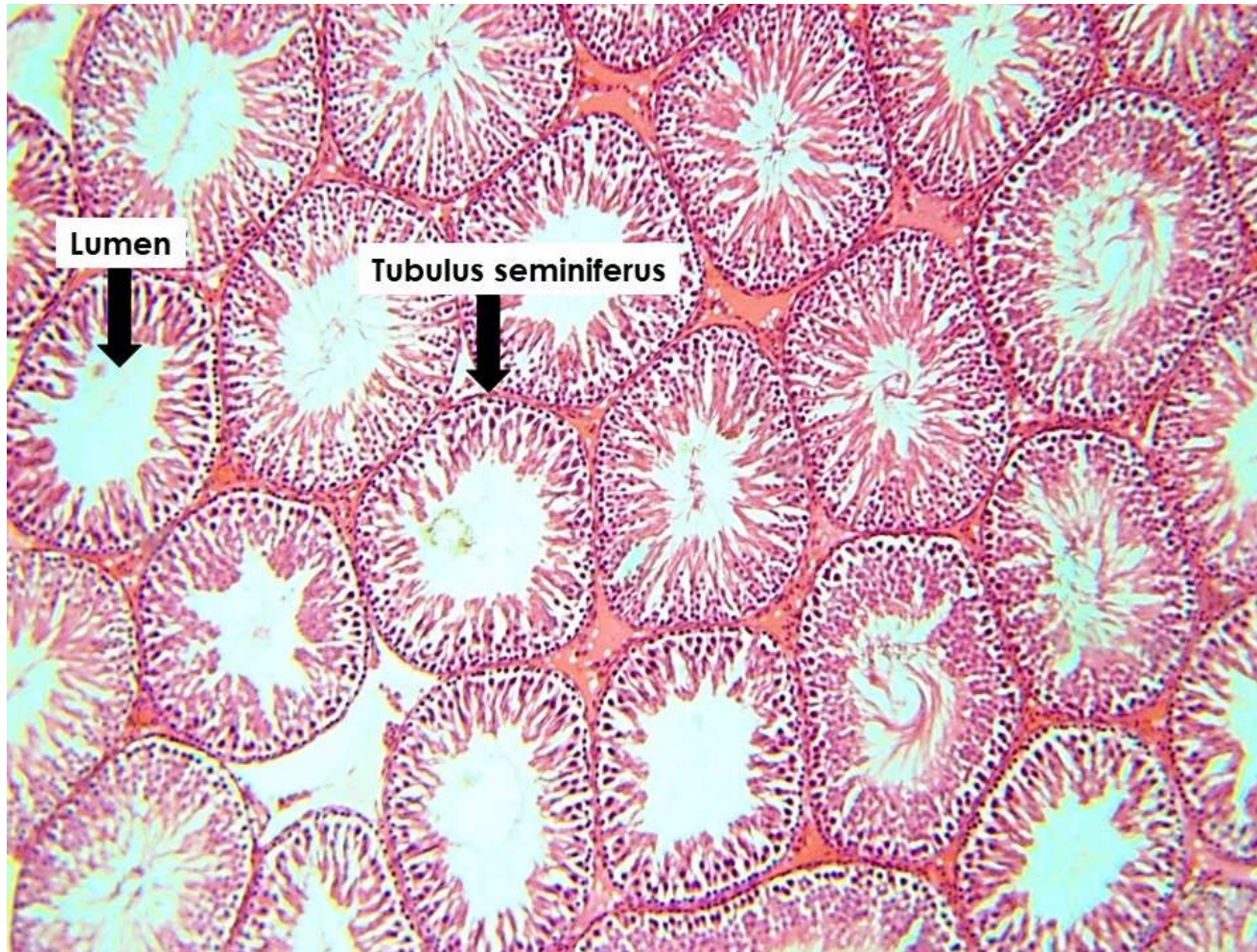


HISTOLOGI TESTIS

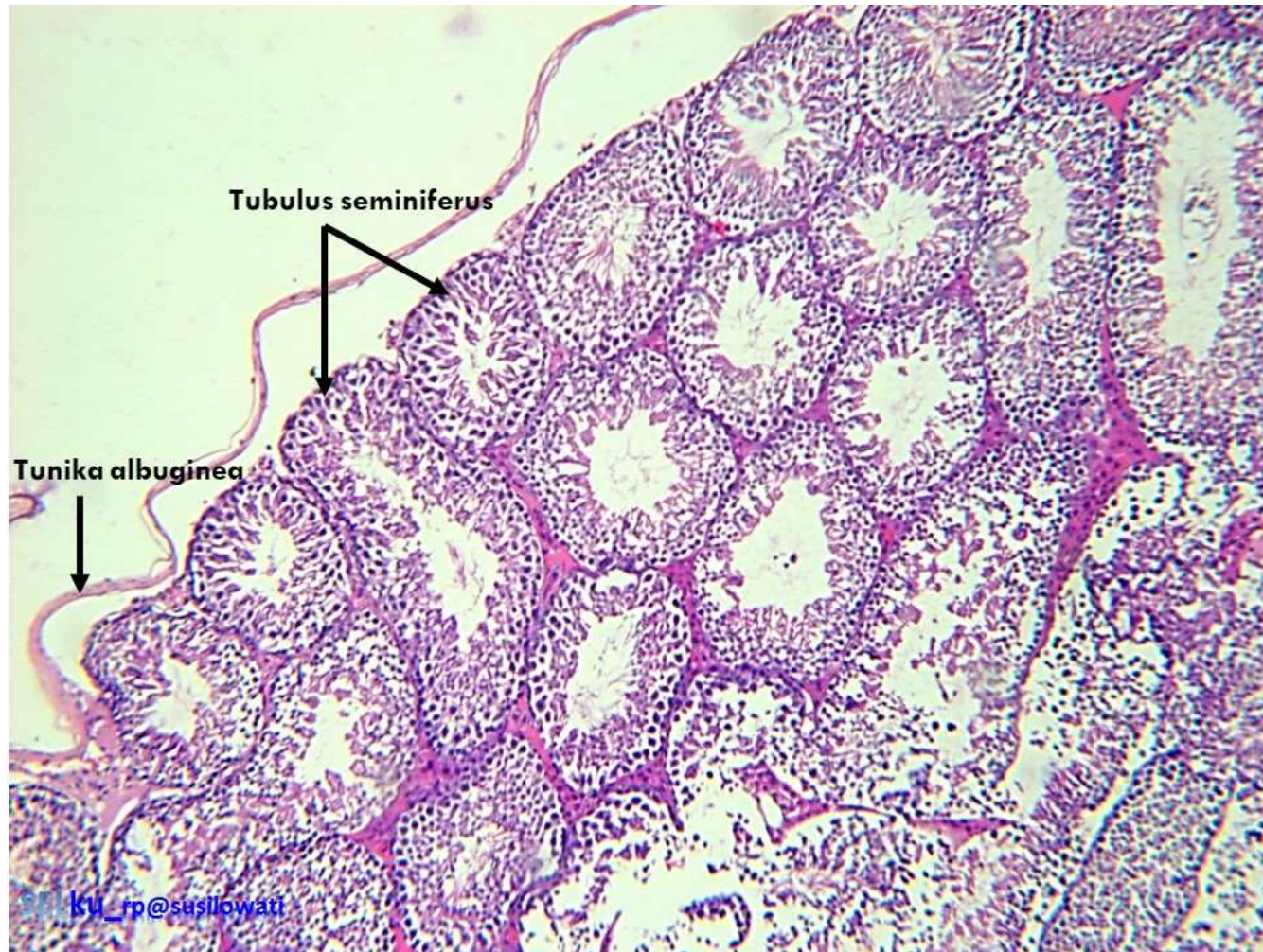
- Tubulus Seminiferus
- Proses Spermatogenesis: Spermatositogenesis & Spermiogenesis
- Spermatositogenesis: Spermatogonia → Spermatosit Primer → Spermatosit Sekunder → Spermatid Bulat
- Spermiogenesis: Spermatid Bulat → Spermatozoa
- Sel Sertoli: memberi makan spermatozoa
- Sel Interstitial/ Sel Leydig: menghasilkan hormone testosteron



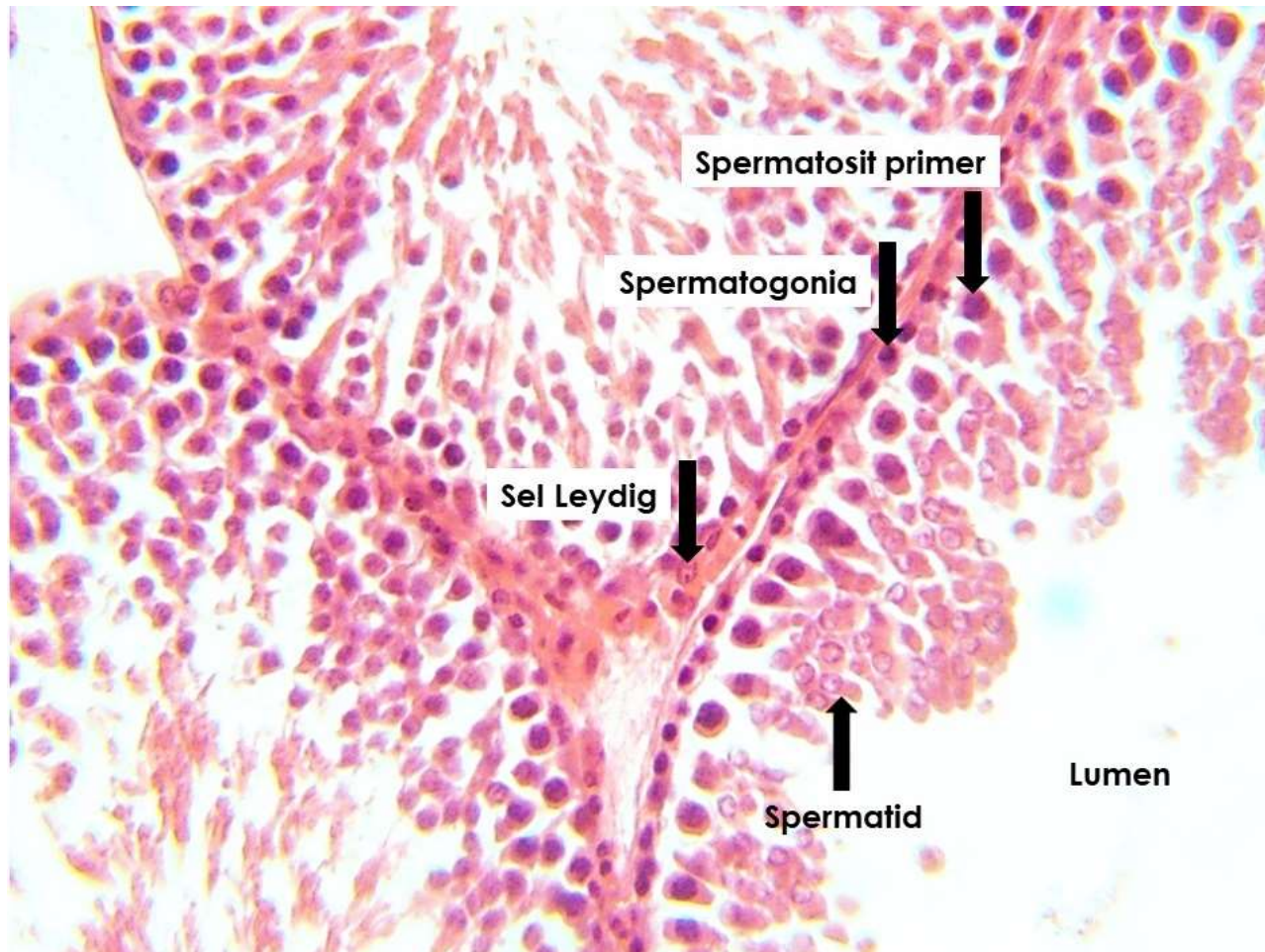
HISTOLOGI TESTIS (HE, 40X)



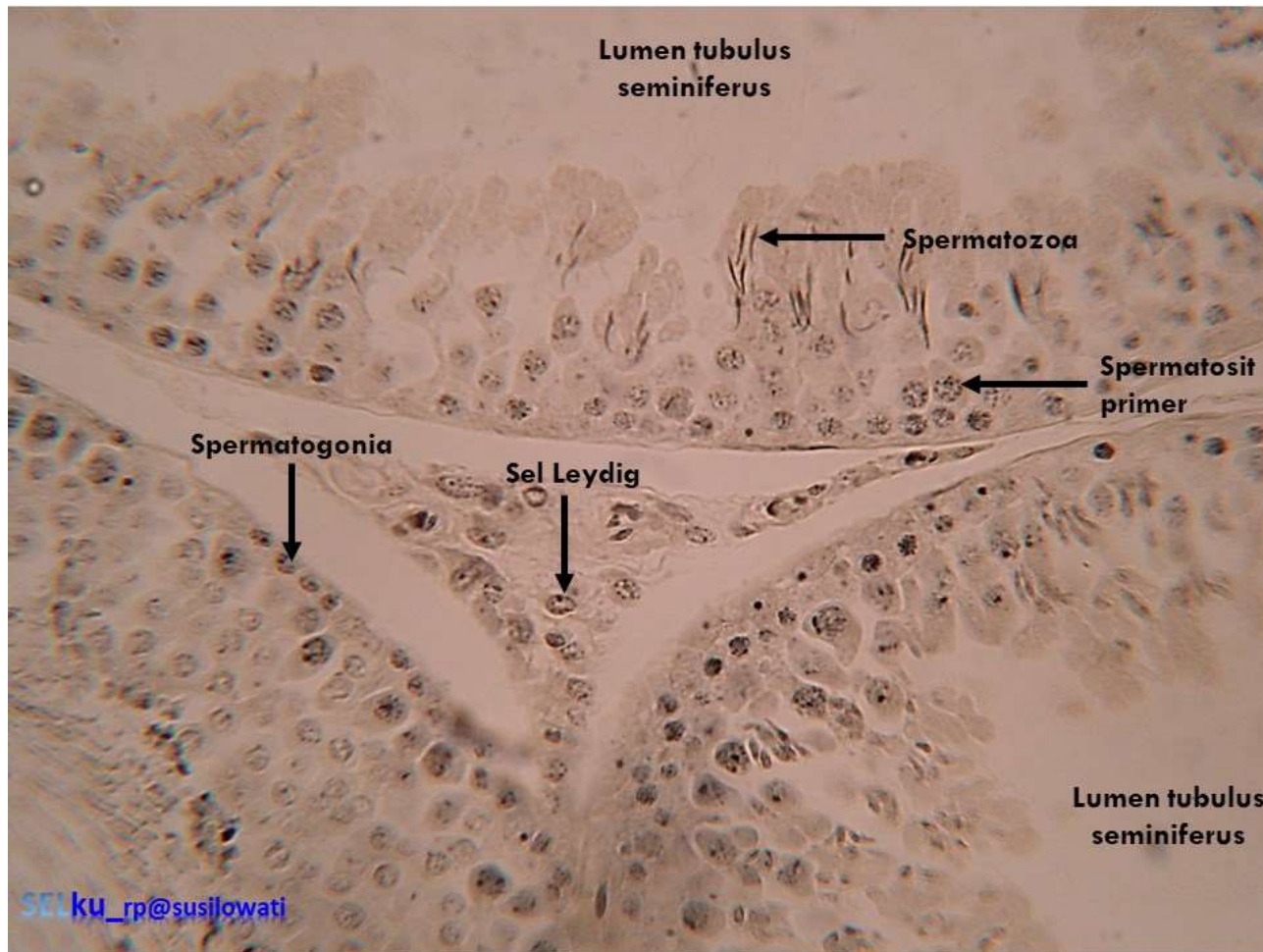
HISTOLOGI TESTIS (PAS, 40X)



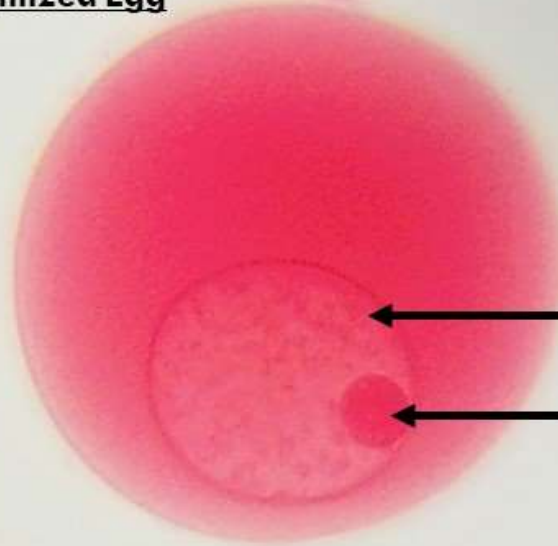
HISTOLOGI TUBULUS SEMINIFERUS TESTIS (HE, 400X): SEL SPERMATOGENIK



HISTOLOGI TUBULUS SEMINIFERUS TESTIS (PAS, 400X): SEL LEYDIG



Unfertilized Egg



Inti Sel

Anak Inti Sel

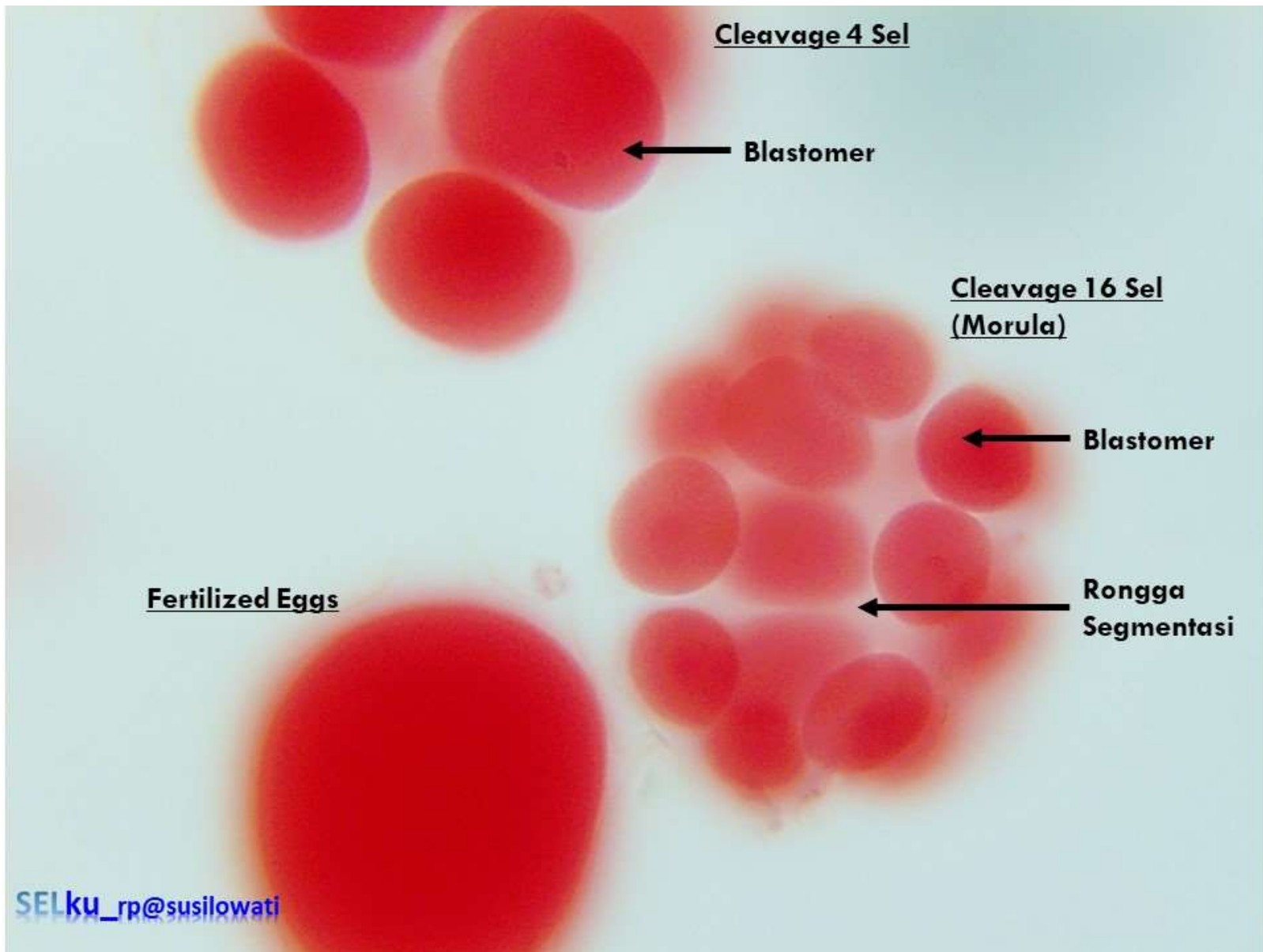
Fertilized Egg



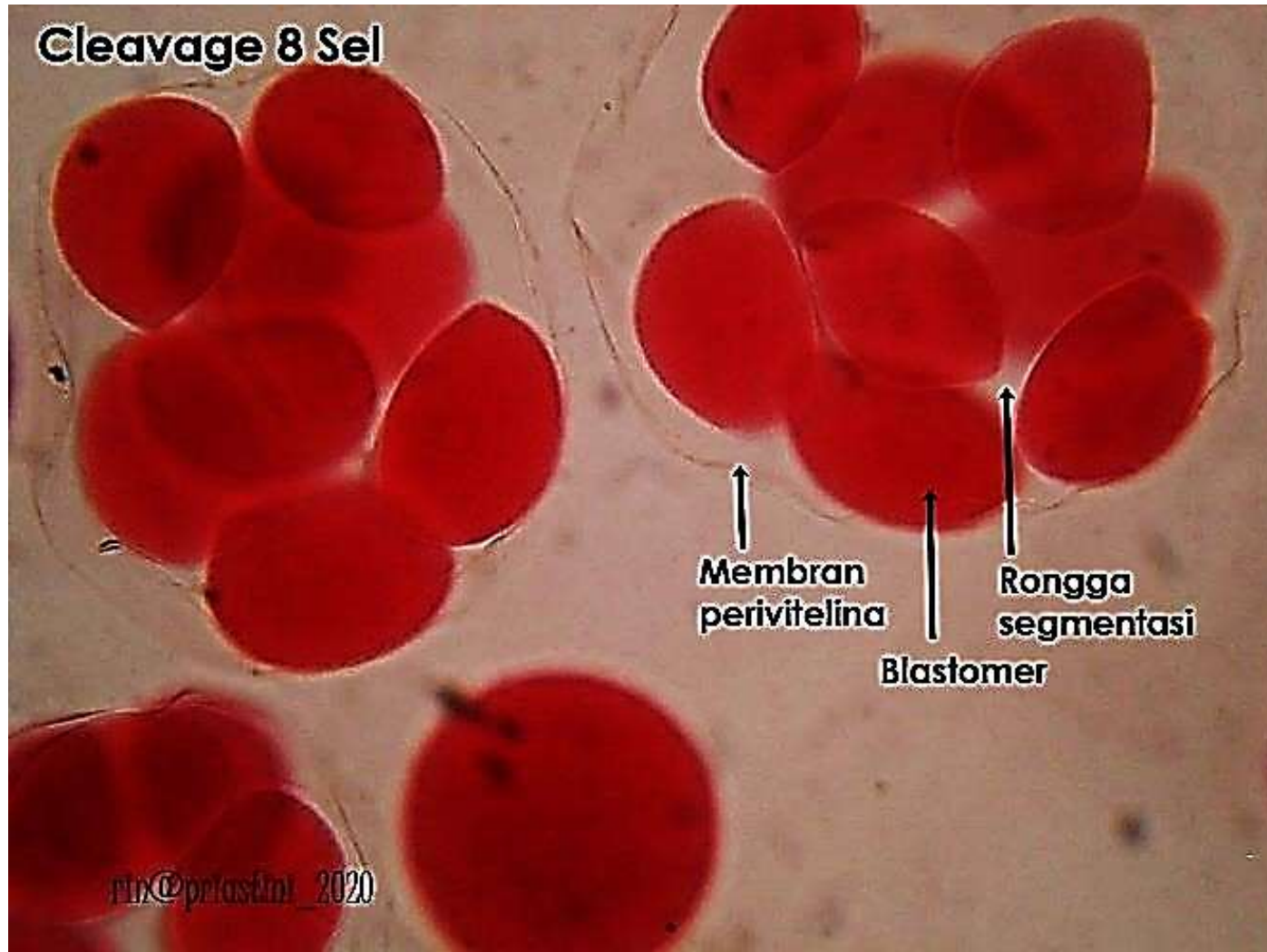
Membran fertilisasi

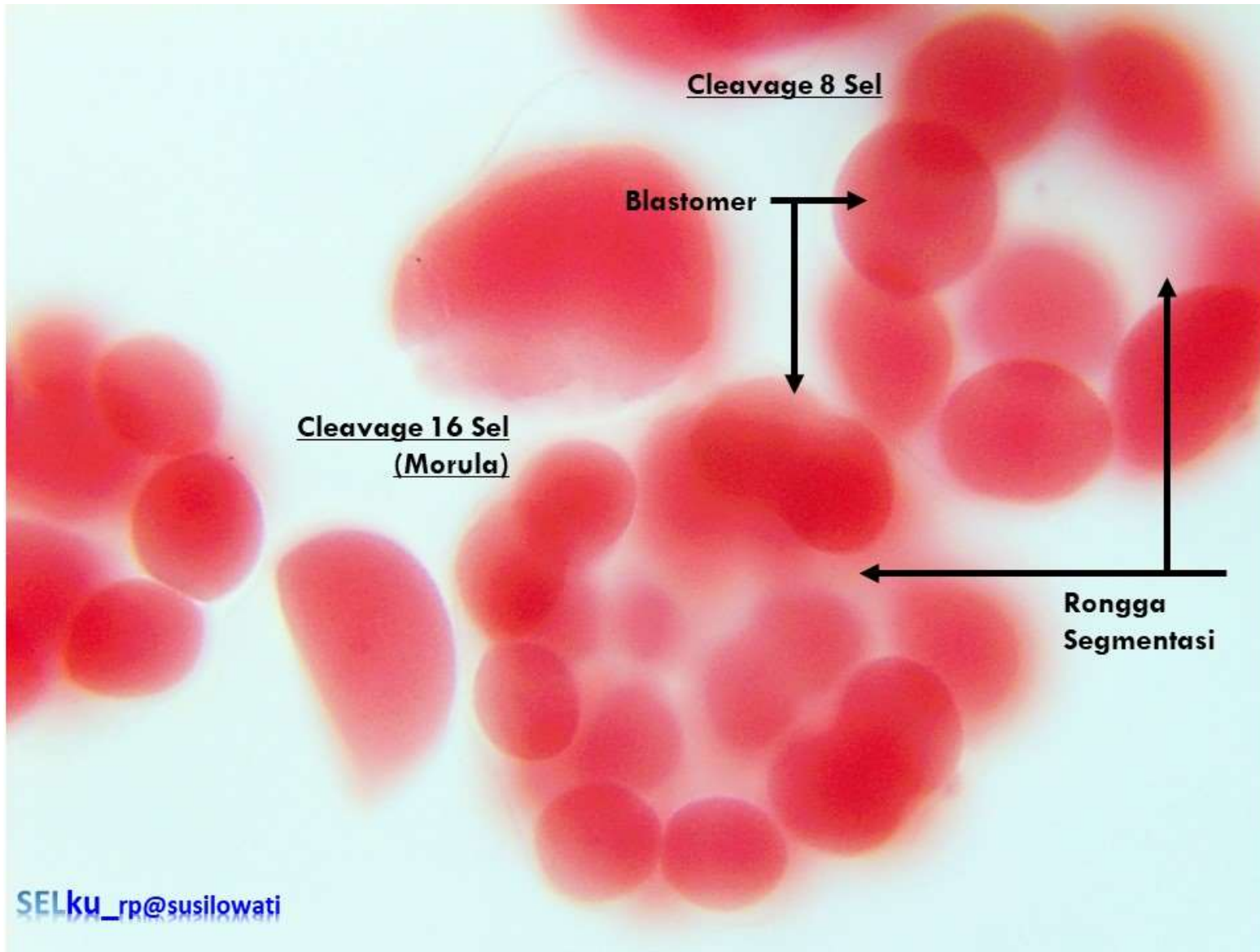
Tidak ada inti dan
anak inti sel



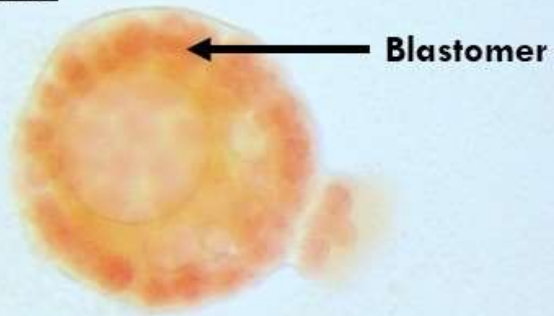


Cleavage 8 Sel



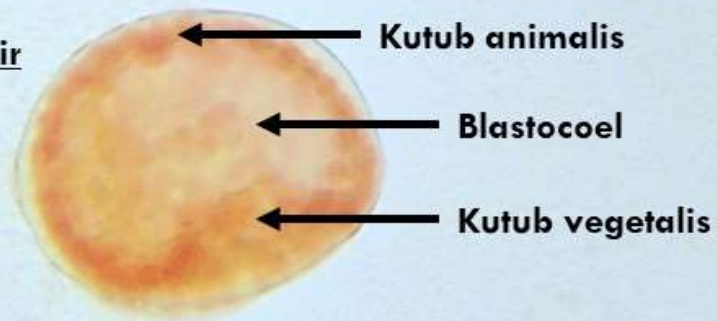


Blastula Awal



Blastomer

Blastula Akhir



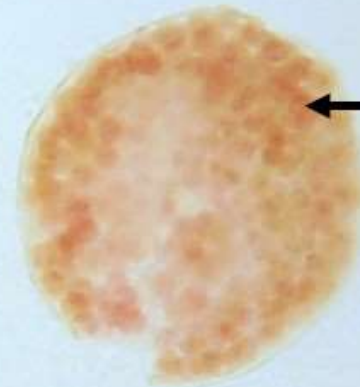
Kutub animalis

Blastocoel

Kutub vegetalis



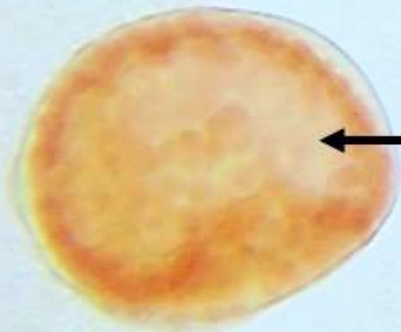
Blastula Awal



← Blastomer

Belum terbentuk
blastocoel

Blastula Akhir

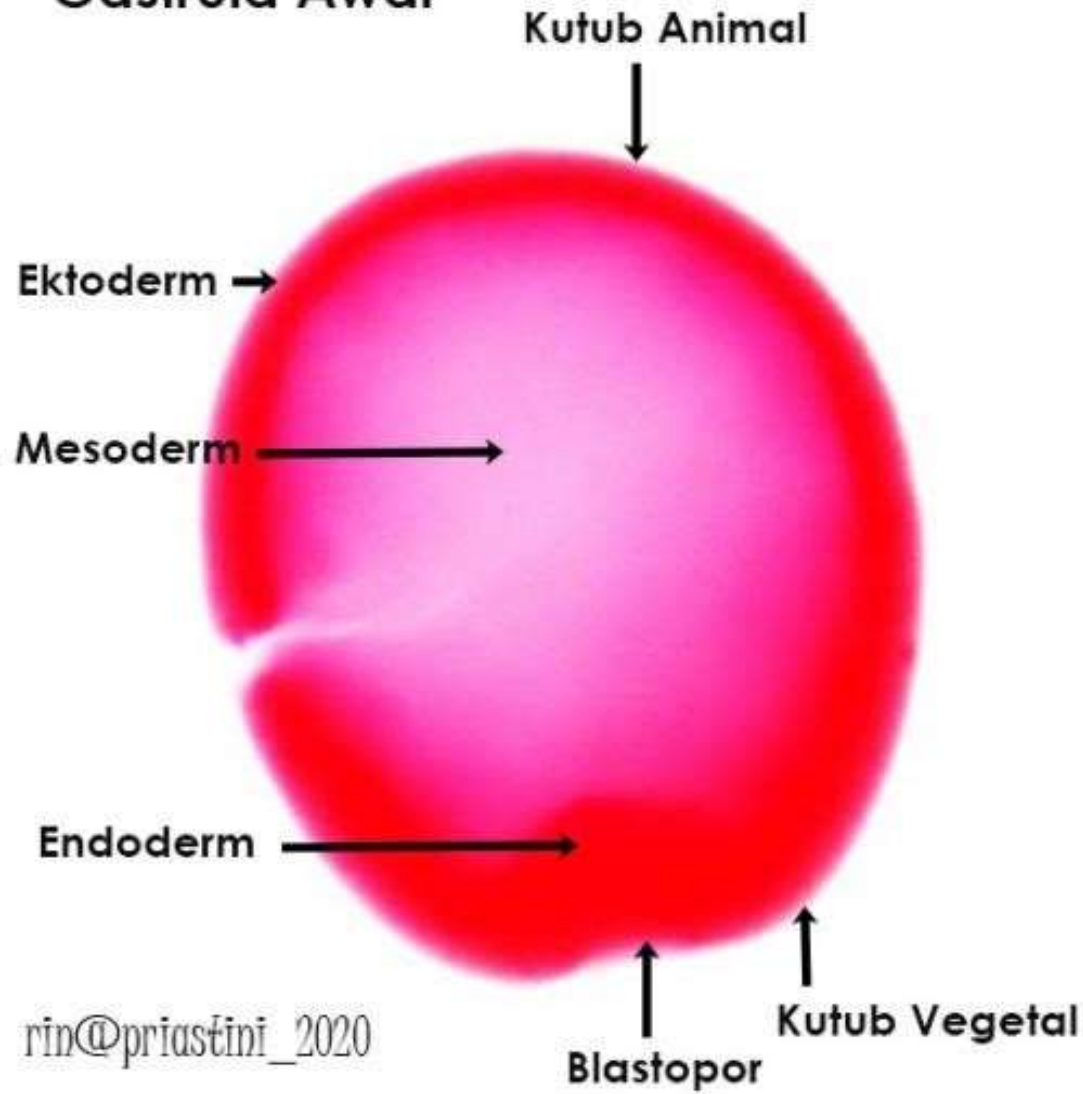


← Terbentuk
blastocoel

Blastula Awal



Gastrula Awal



rin@priastini_2020



Gastrula Akhir

Kutub Animal

Ektoderm

Mesoderm

Endoderm

Archenteron

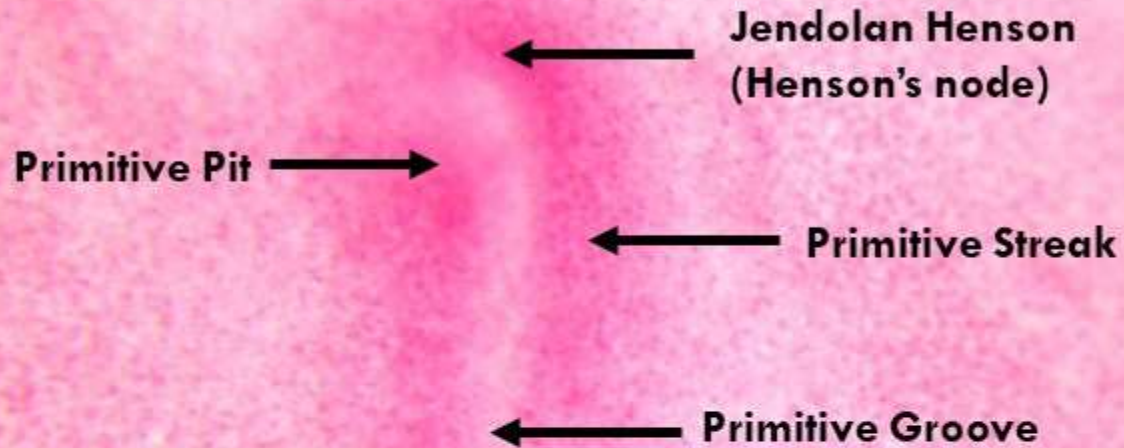
Blastoporus

Kutub Vegetal

rin@priastini



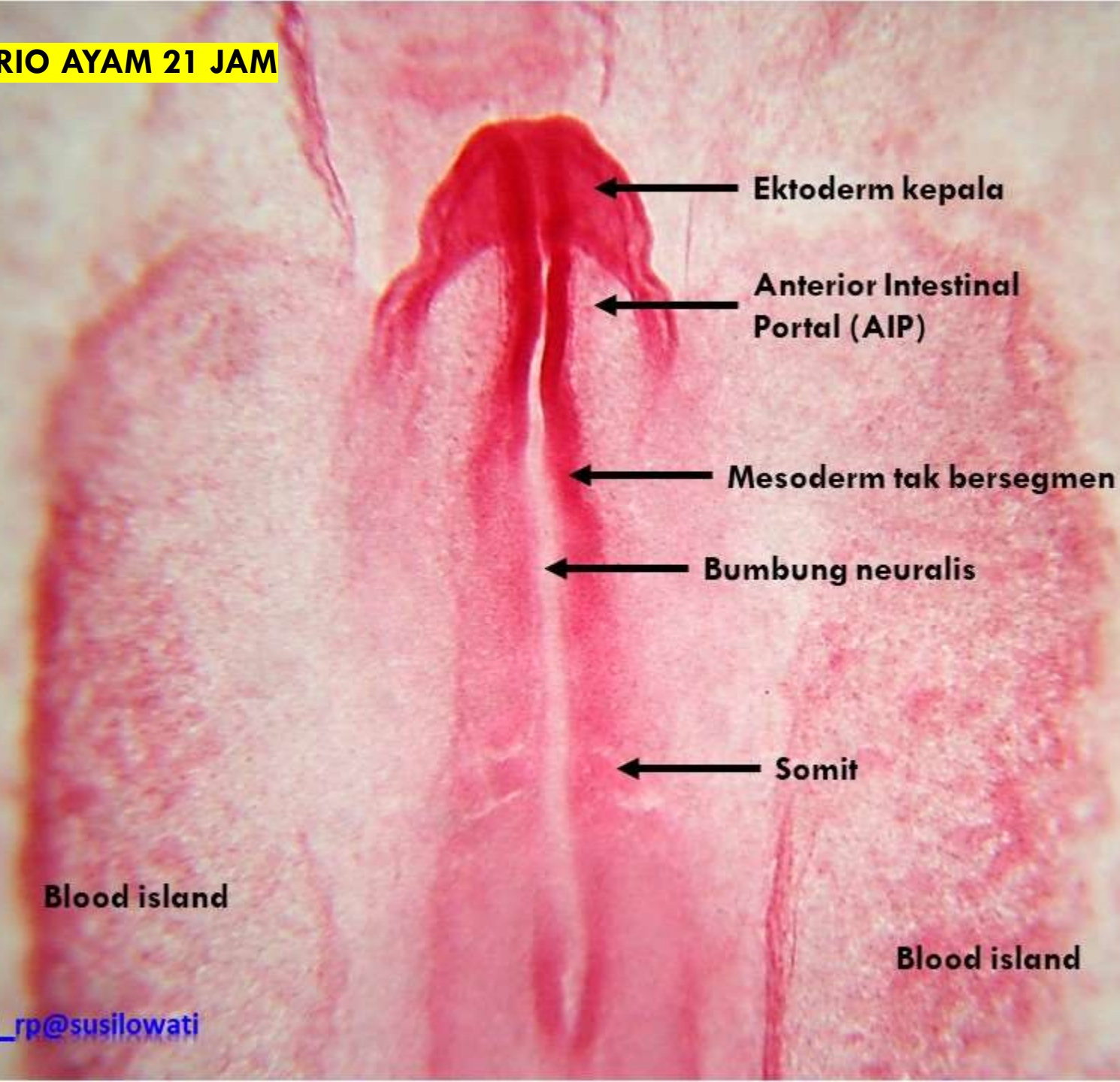
EMBRIO AYAM 18 JAM



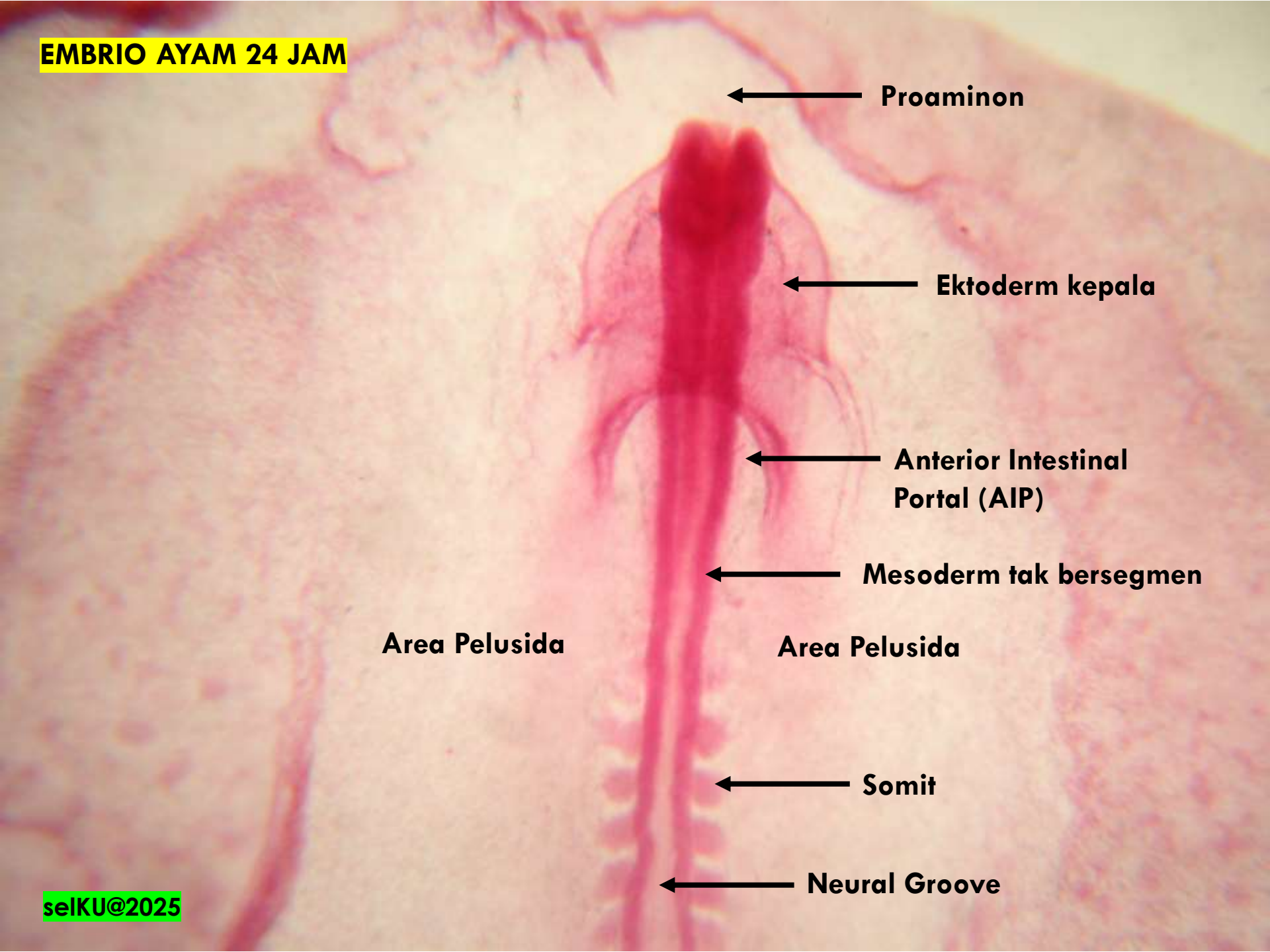
Area Opaca

Area Pelusida

EMBRIO AYAM 21 JAM



EMBRIO AYAM 24 JAM



← **Proaminon**

← **Ektoderm kepala**

← **Anterior Intestinal Portal (AIP)**

← **Mesoderm tak bersegmen**

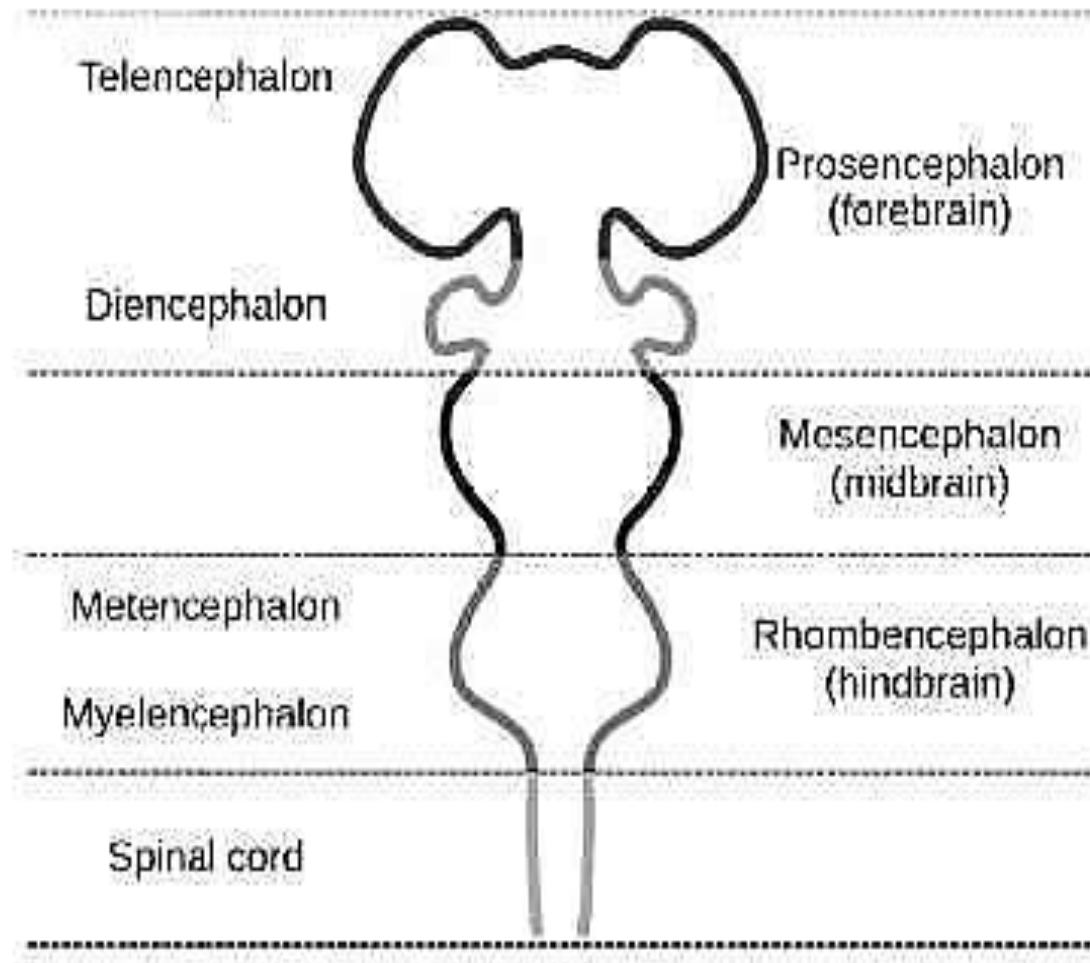
Area Pelusida

Area Pelusida

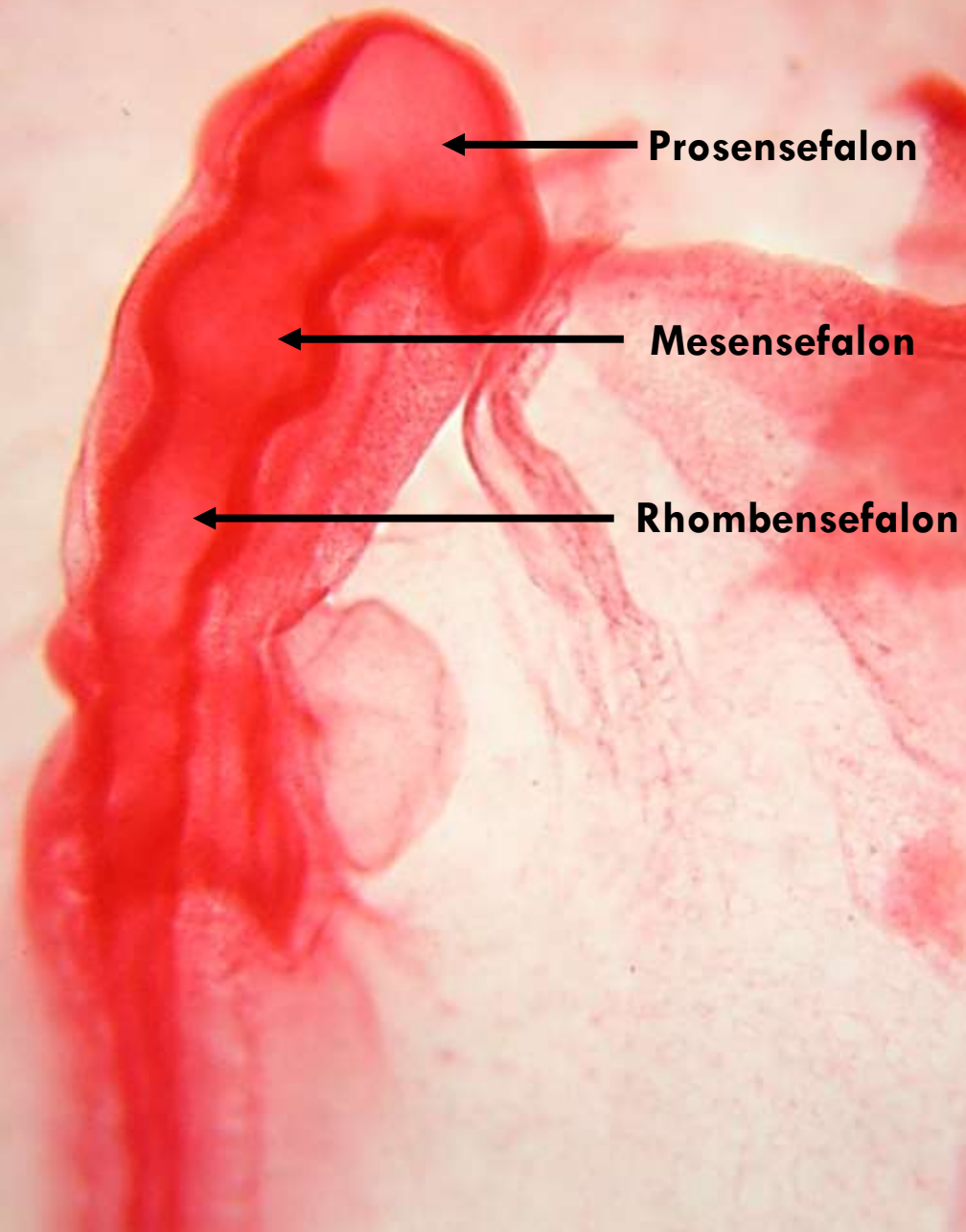
← **Somit**

← **Neural Groove**

PERKEMBANGAN OTAK



EMBRIO AYAM 36 JAM



EMBRIO AYAM 48 JAM

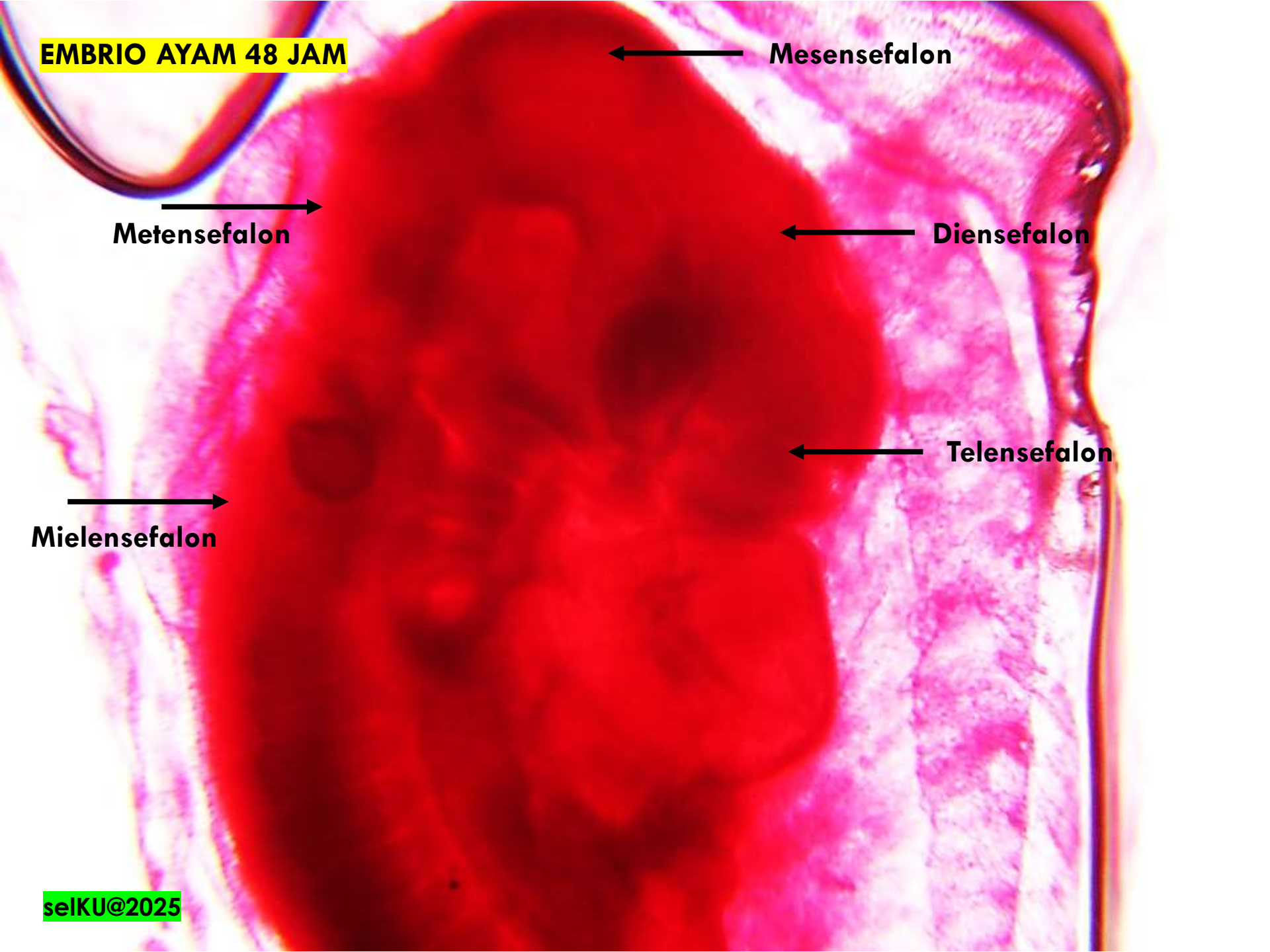
Mesensefalon

Metensefalon

Diensefalon

Telensefalon

Mielensefalon



EMBRIO AYAM 72 JAM

← **Metensefalon**

← **Mesensefalon**

← **Diensefalon**

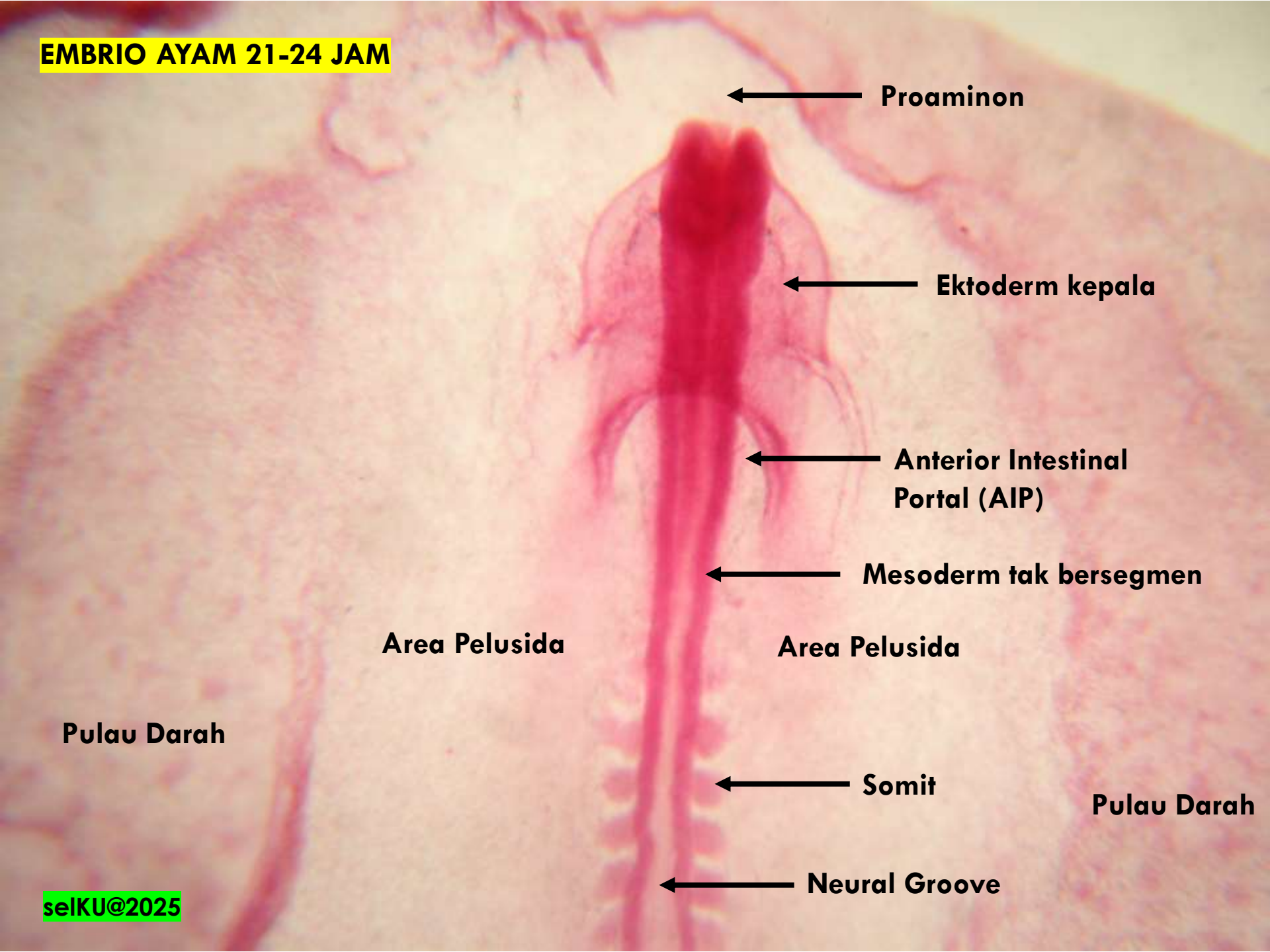
← **Telensefalon**

PERKEMBANGAN PEMBULUH DARAH

- 21-24 Jam: Pulau Darah (Blood Islands)
- 33-38 Jam: Pleksus Vitelina
- 48 Jam – dst: Arteri Vena Vitelina



EMBRIO AYAM 21-24 JAM



← Proaminon

← Ektoderm kepala

← Anterior Intestinal Portal (AIP)

← Mesoderm tak bersegmen

Area Pelusida

Area Pelusida

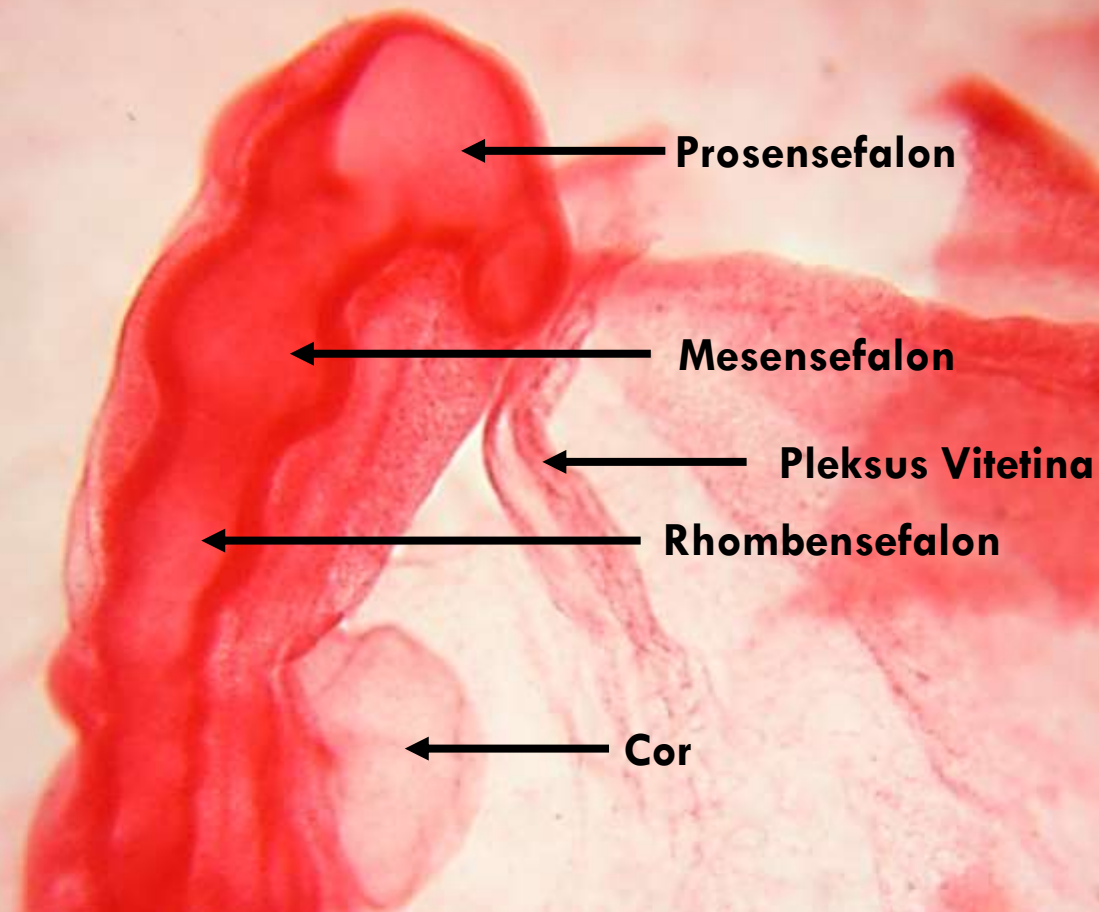
Pulau Darah

← Somit

Pulau Darah

← Neural Groove

EMBRIO AYAM 38 JAM



← **Arteri Vena Vitelina
(AV Vitelina)**

PERKEMBANGAN ORGAN LAIN EMBRIO 72 JAM

- Ototis → berkembang menjadi organ pendengaran
- Epifisis → berkembang menjadi organ penciuman
- Lensa Mata → akan berkembang menjadi retina
- Mangkuk mata
- Allantois → Organ ekskresi (penampungan limbah/ kotoran)



EMBRIO AYAM 72 JAM

Mielensefalon

Otosis

Metensefalon

Mesensefalon

Lensa Mata

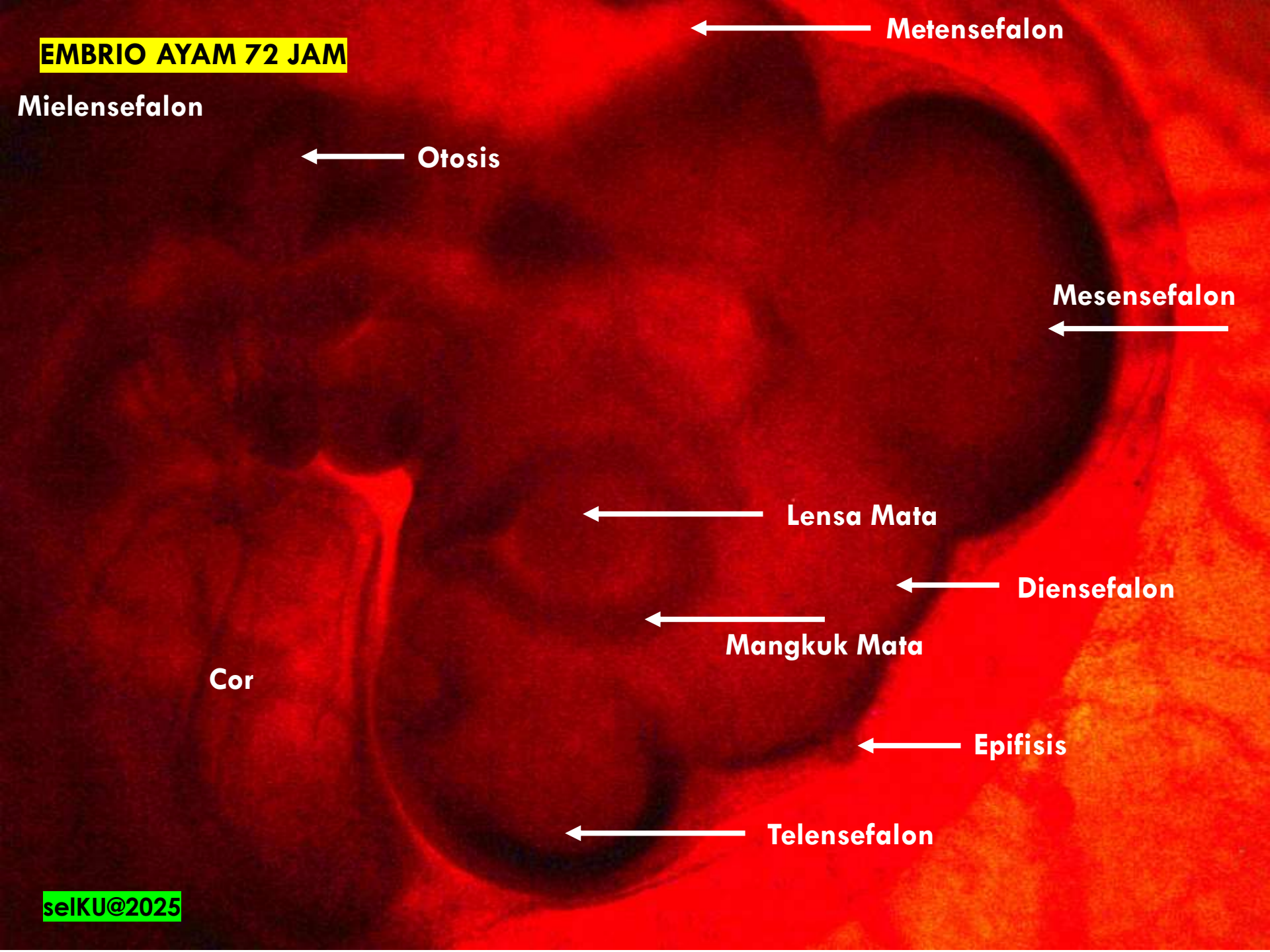
Diensefalon

Mangkuk Mata

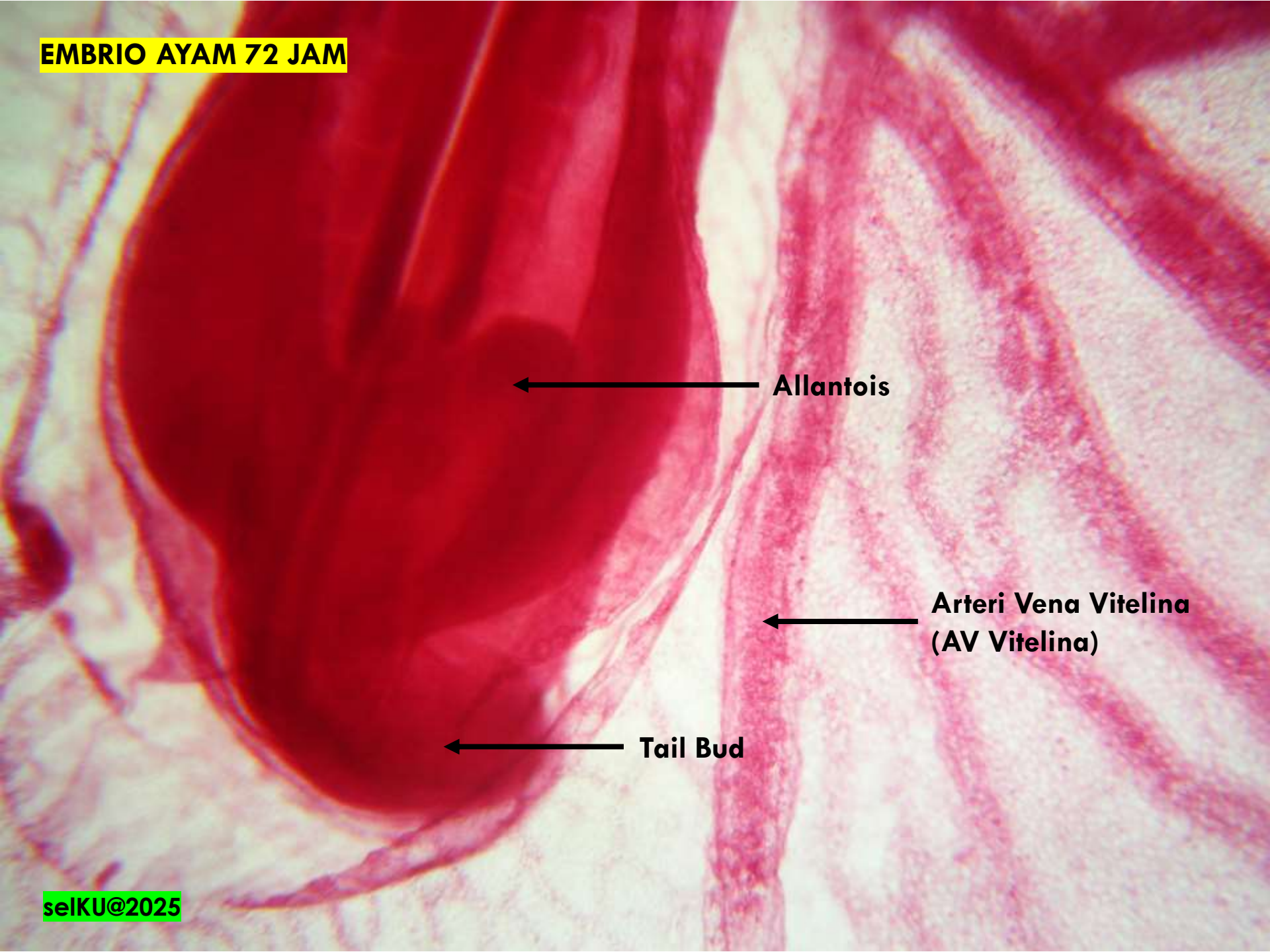
Cor

Epifisis

Telensefalon



EMBRIO AYAM 72 JAM



← Allantois

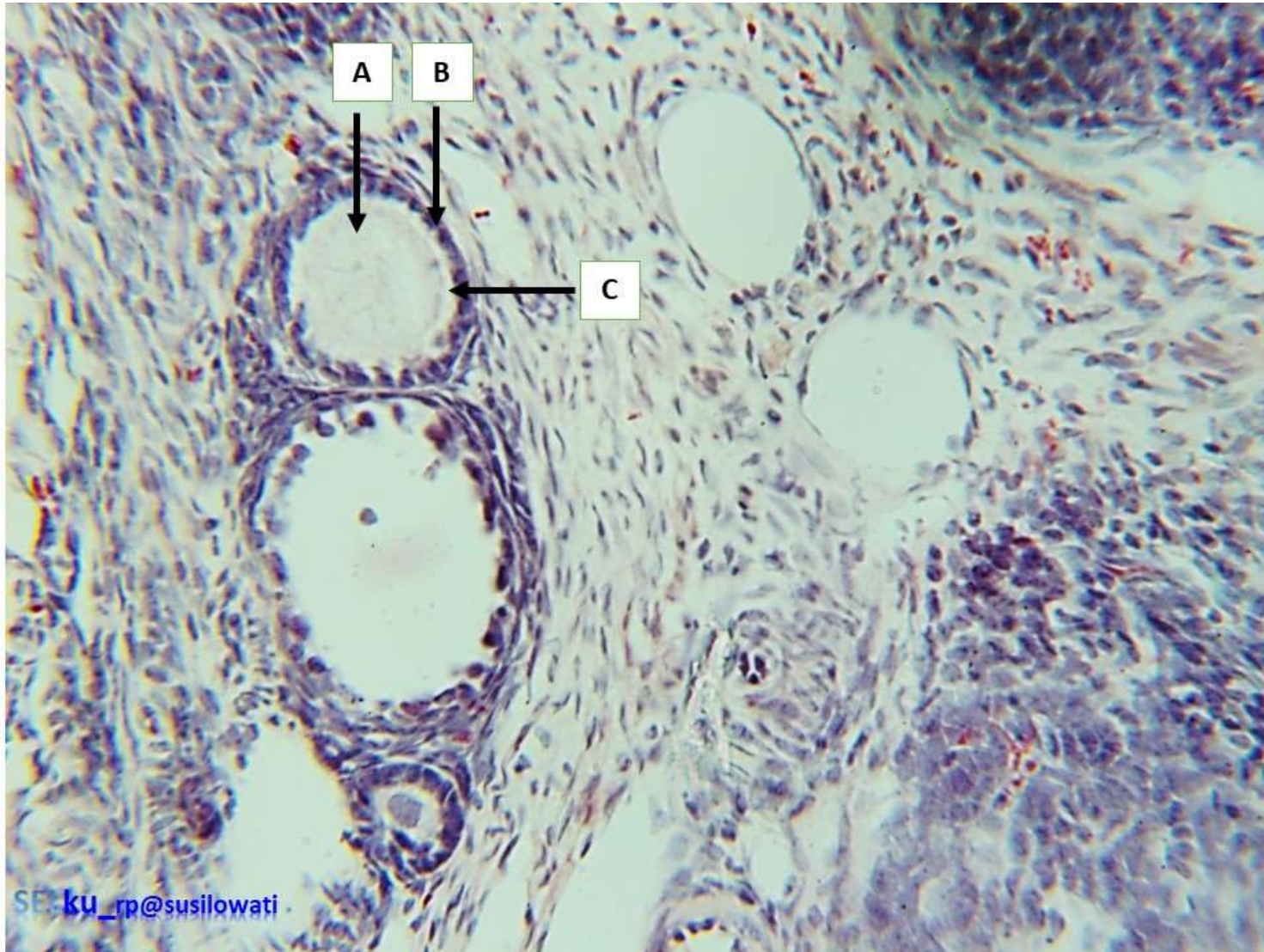
← Arteri Vena Vitelina
(AV Vitelina)

← Tail Bud

REVIEW ORGAN REPRODUKSI



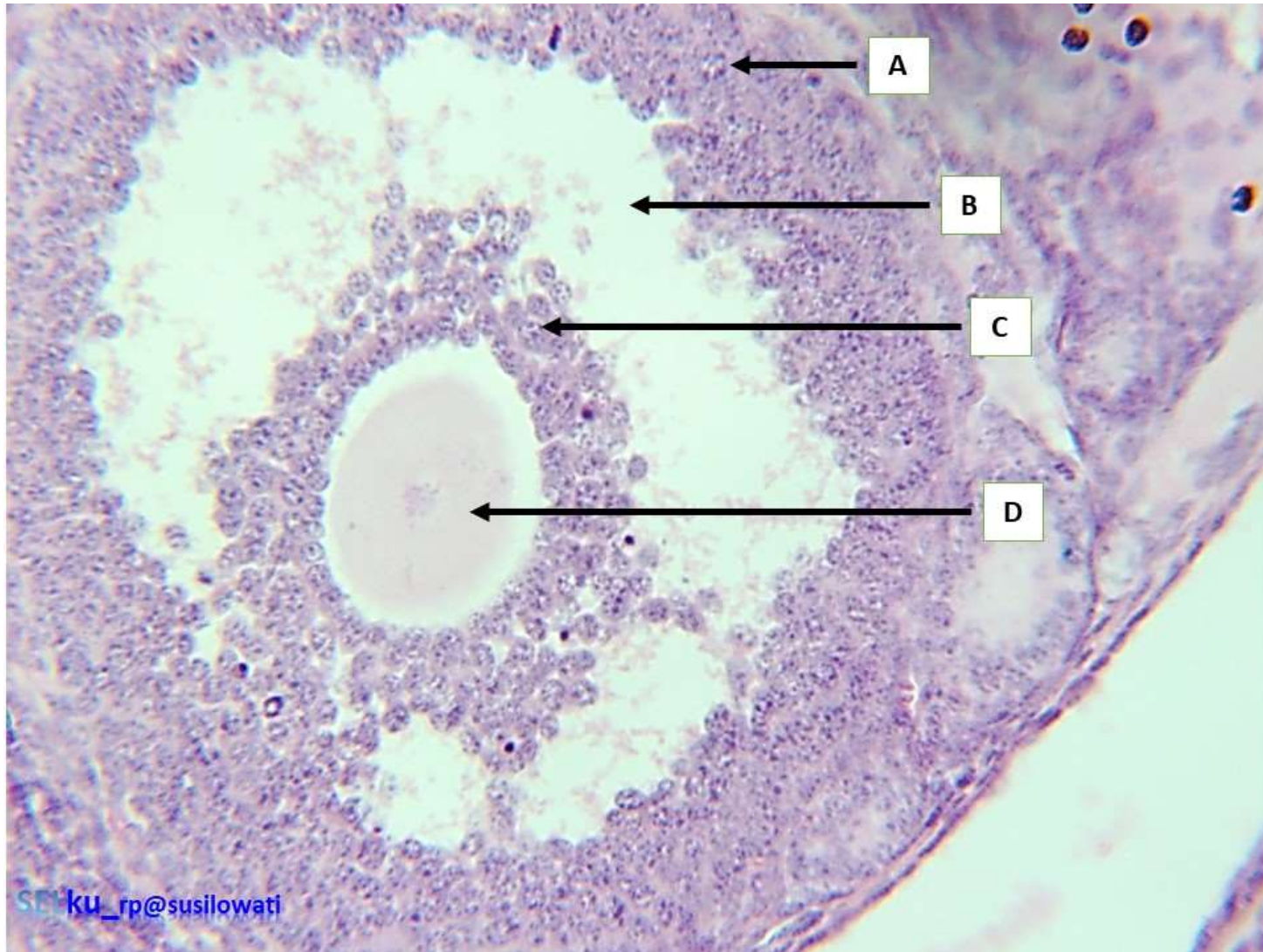
REVIEW 01



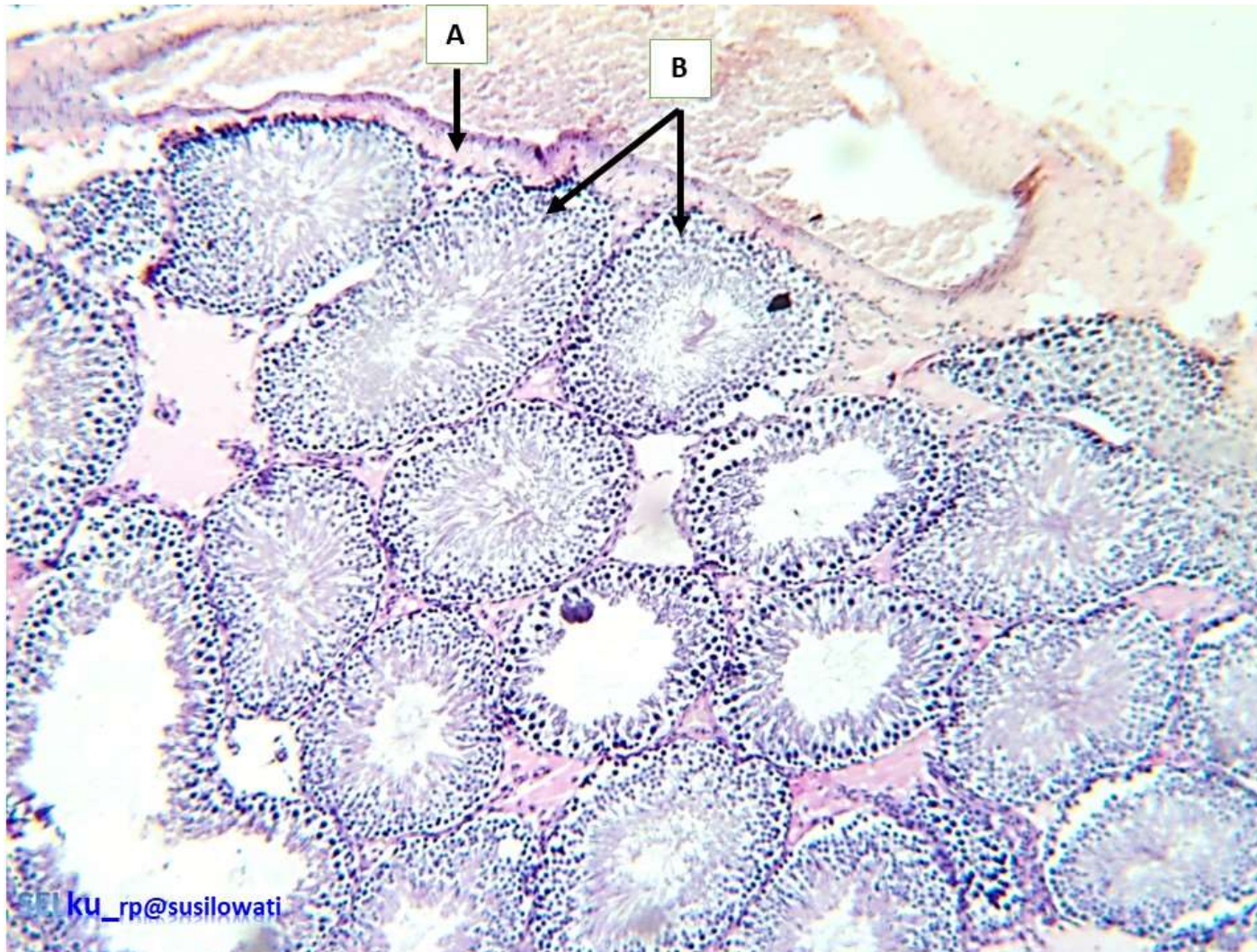
REVIEW 02



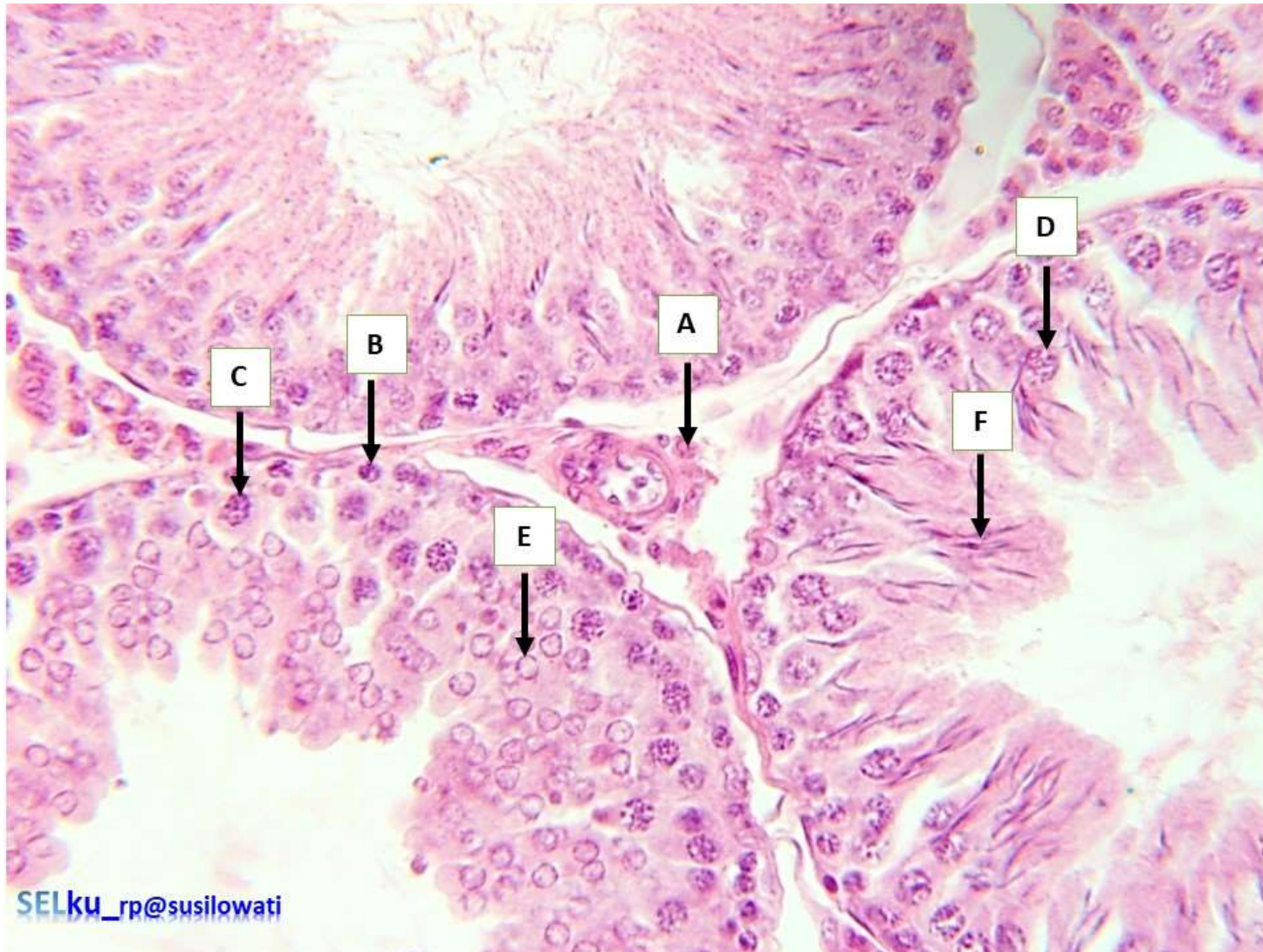
REVIEW 03



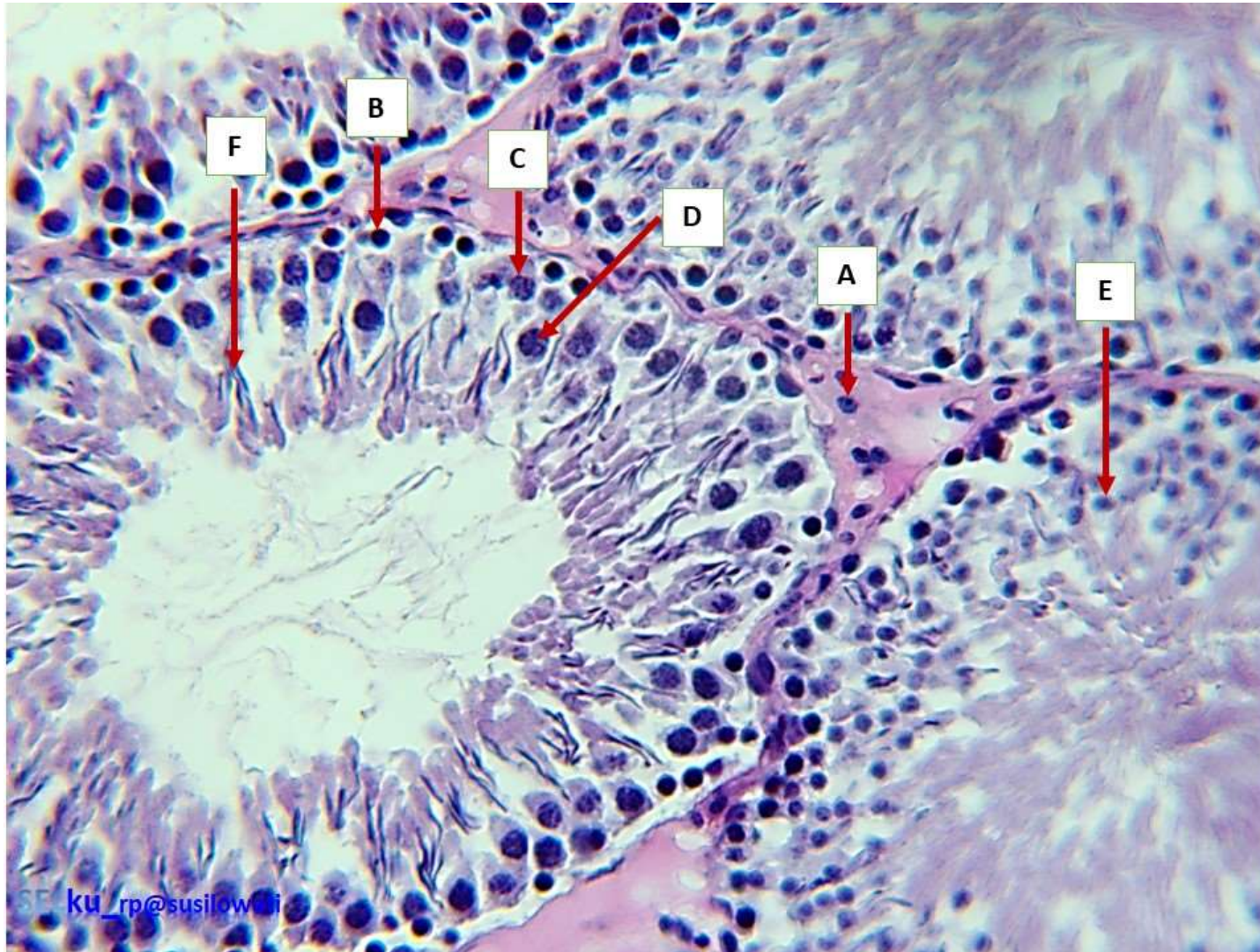
REVIEW 04



REVIEW 05



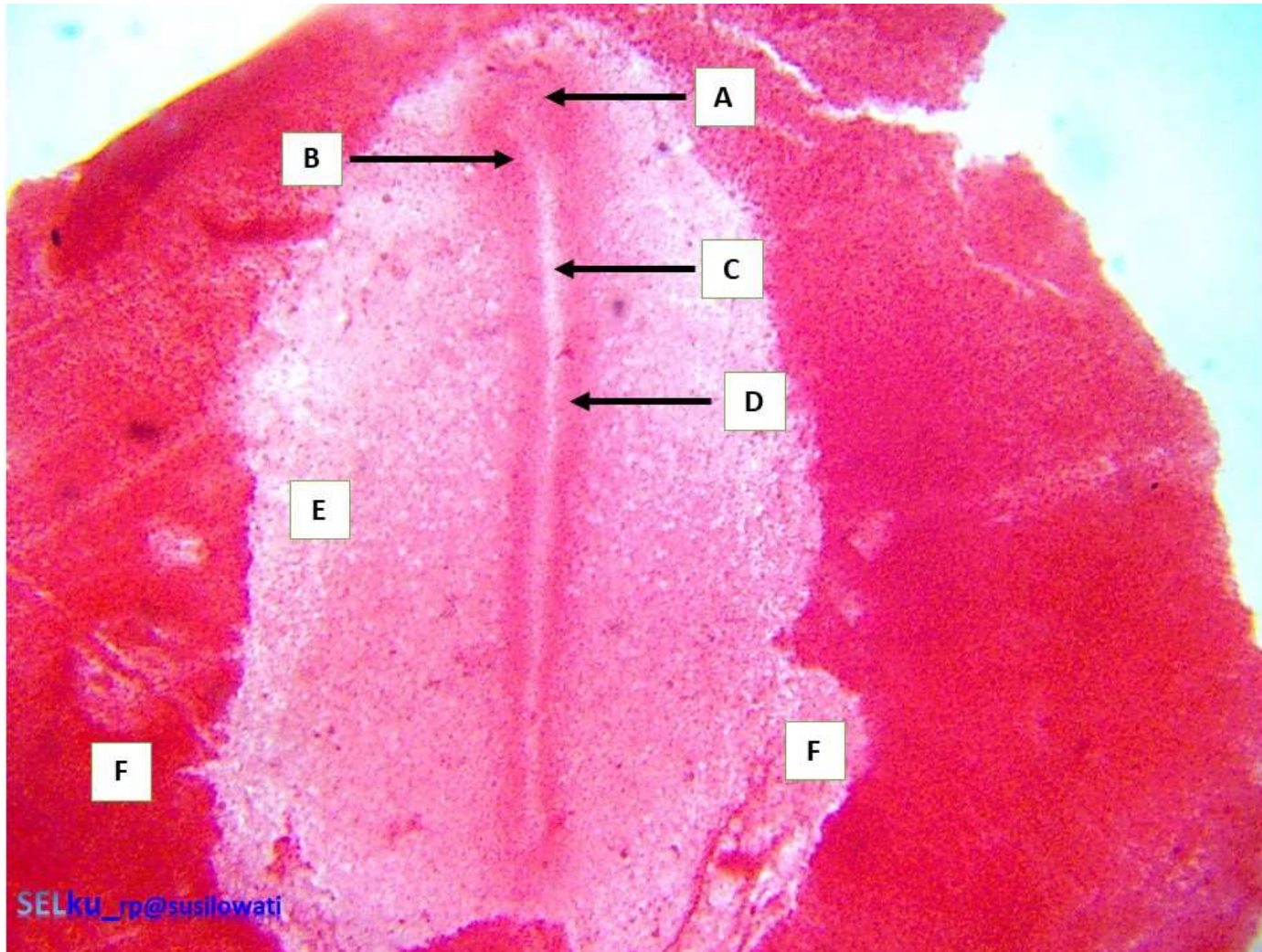
REVIEW 06



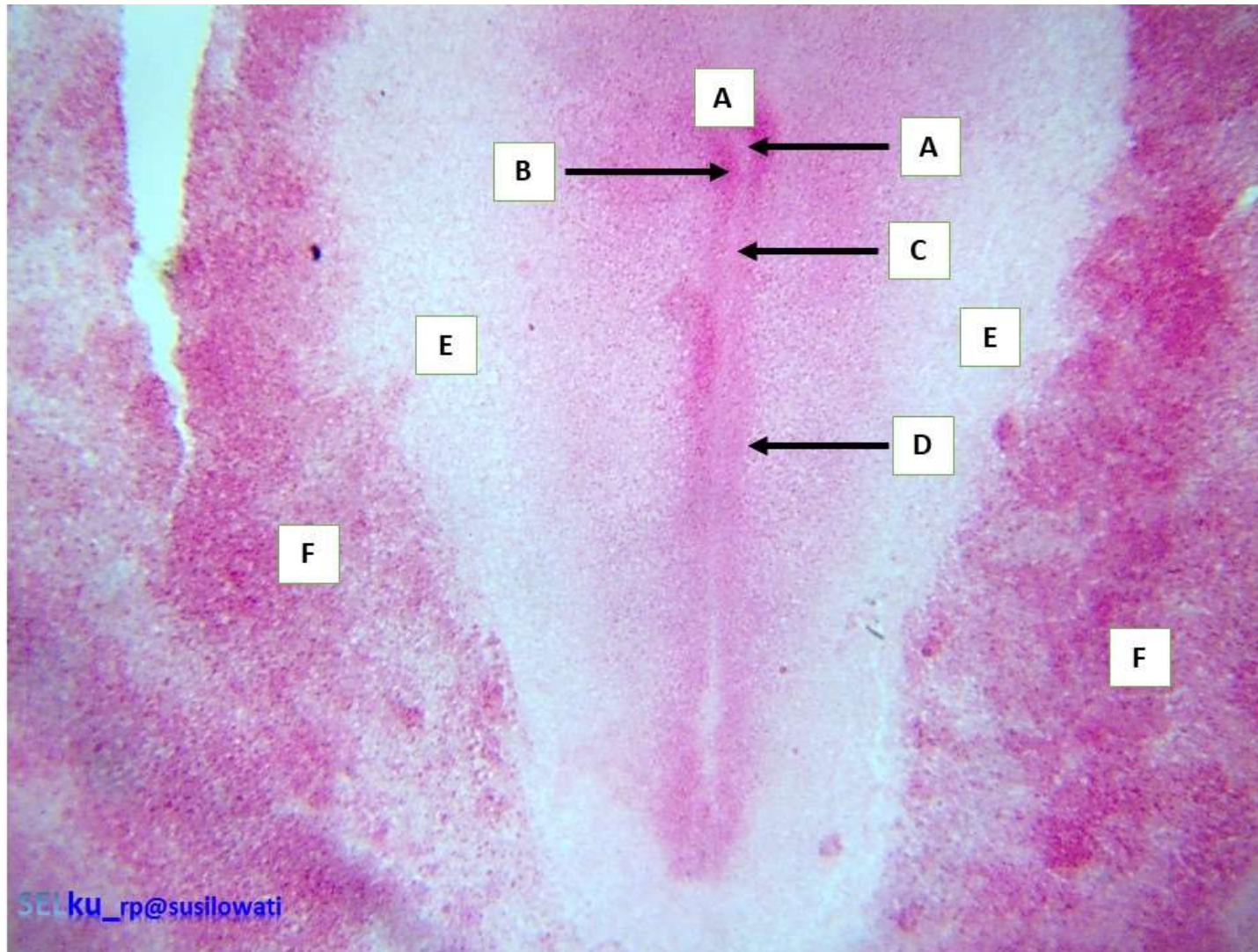
REVIEW EMBRIOLOGI



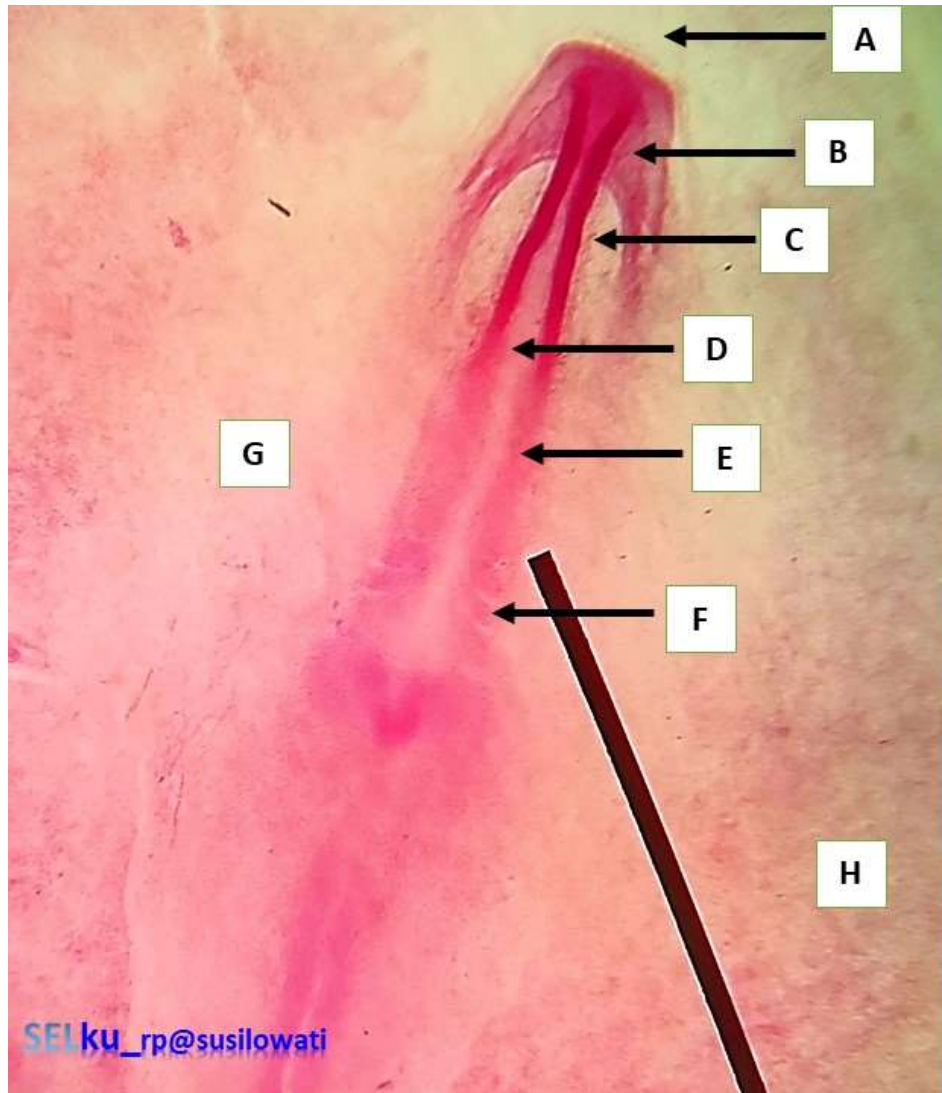
REVIEW 01



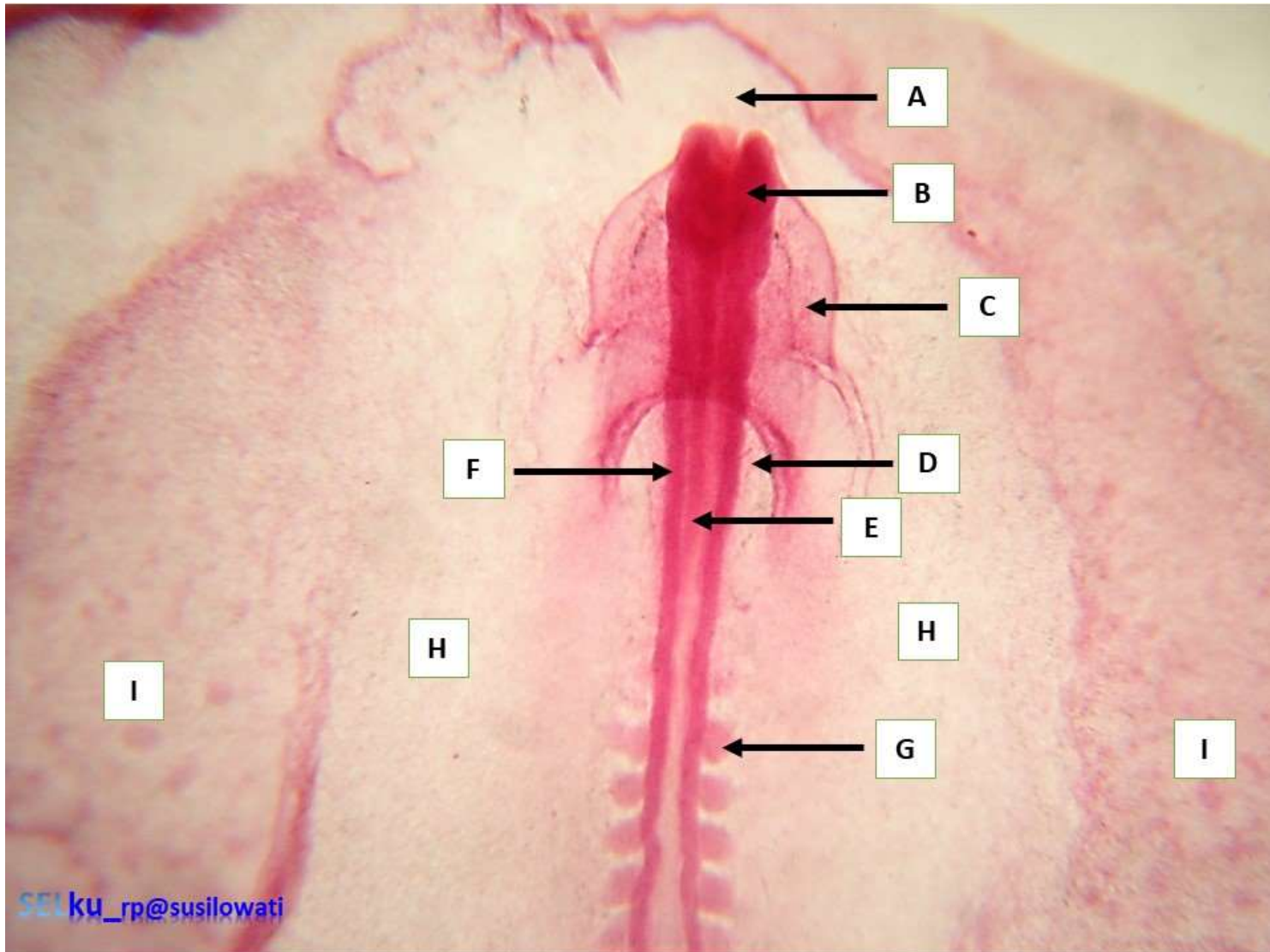
REVIEW 02



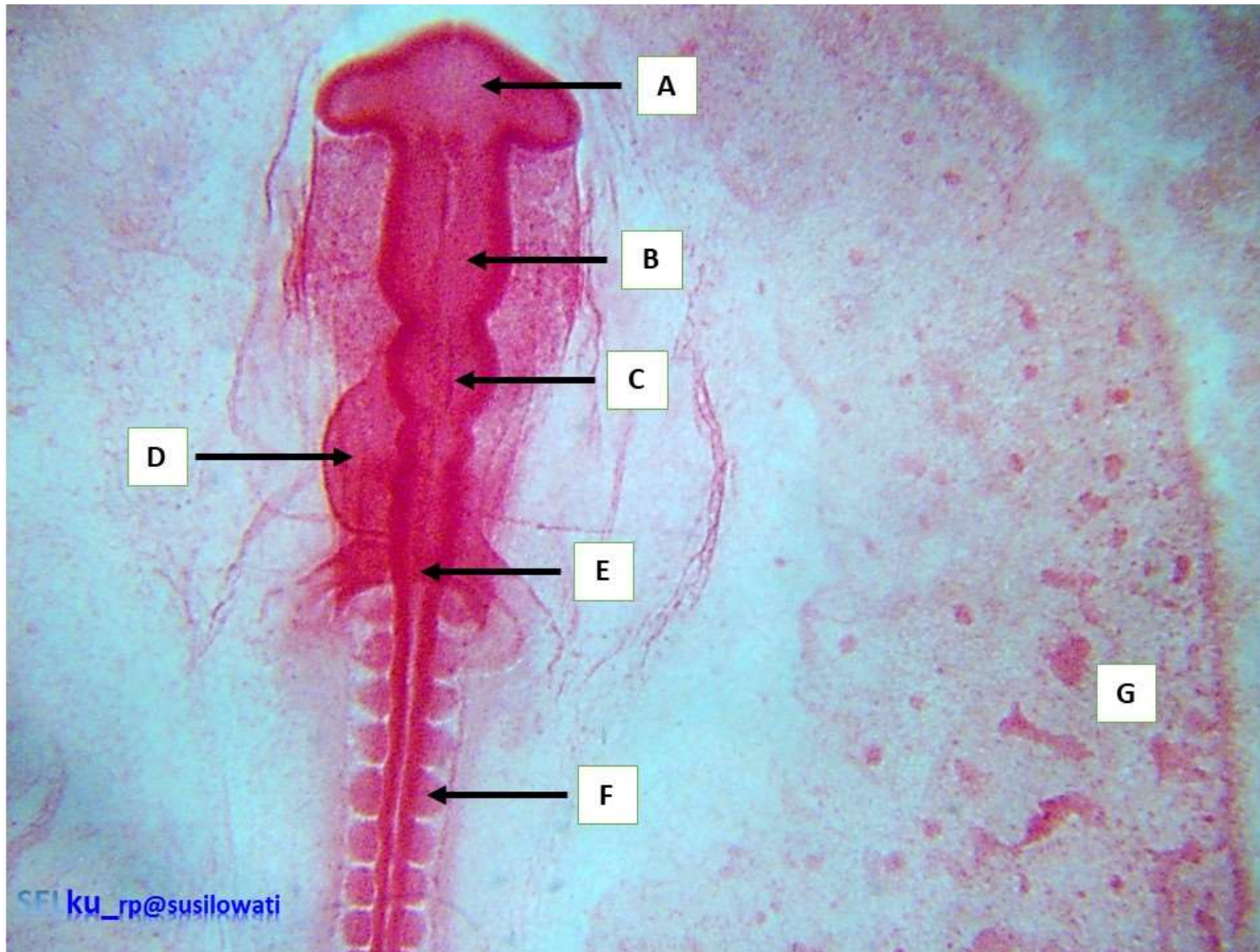
REVIEW 03



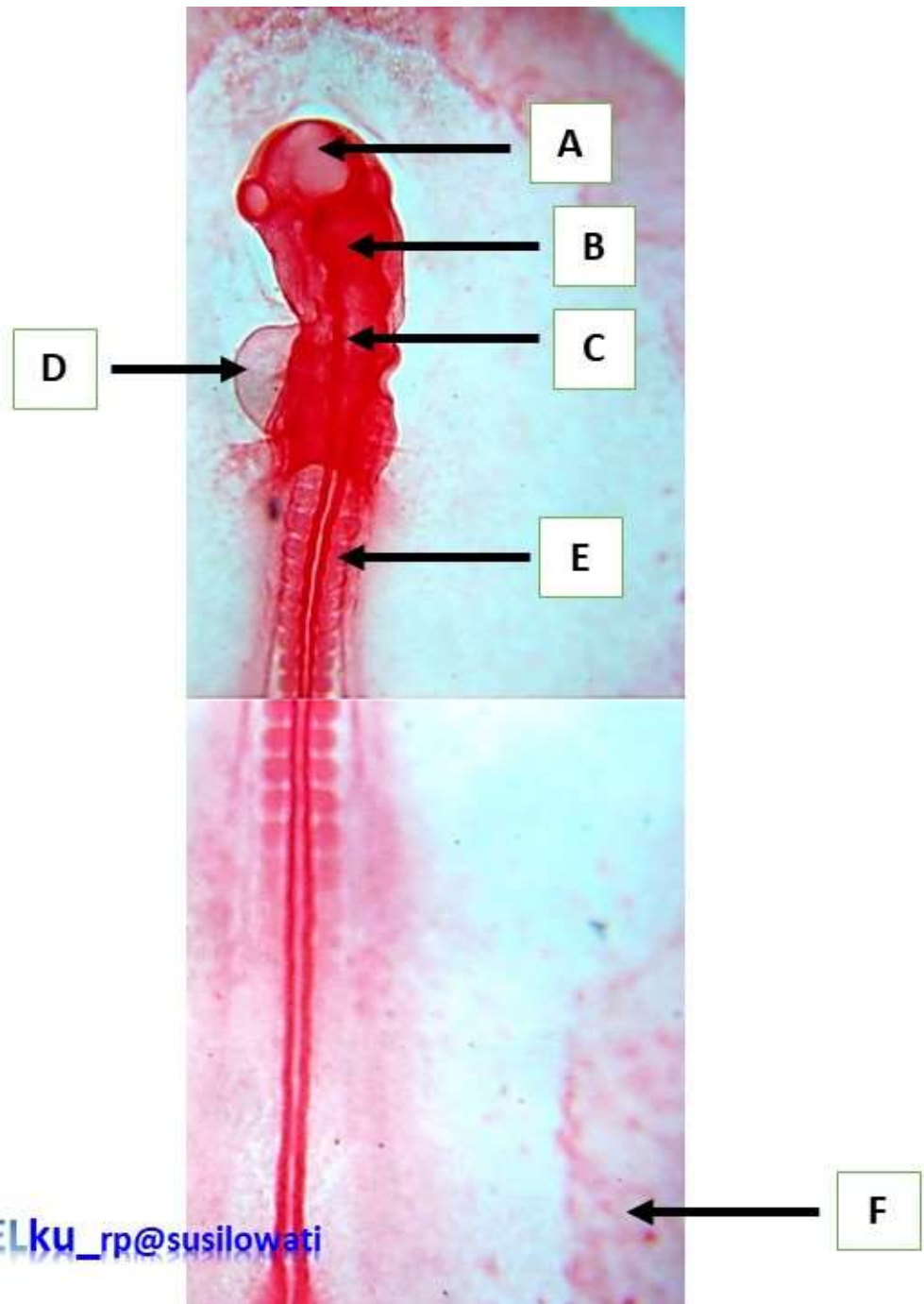
REVIEW 04



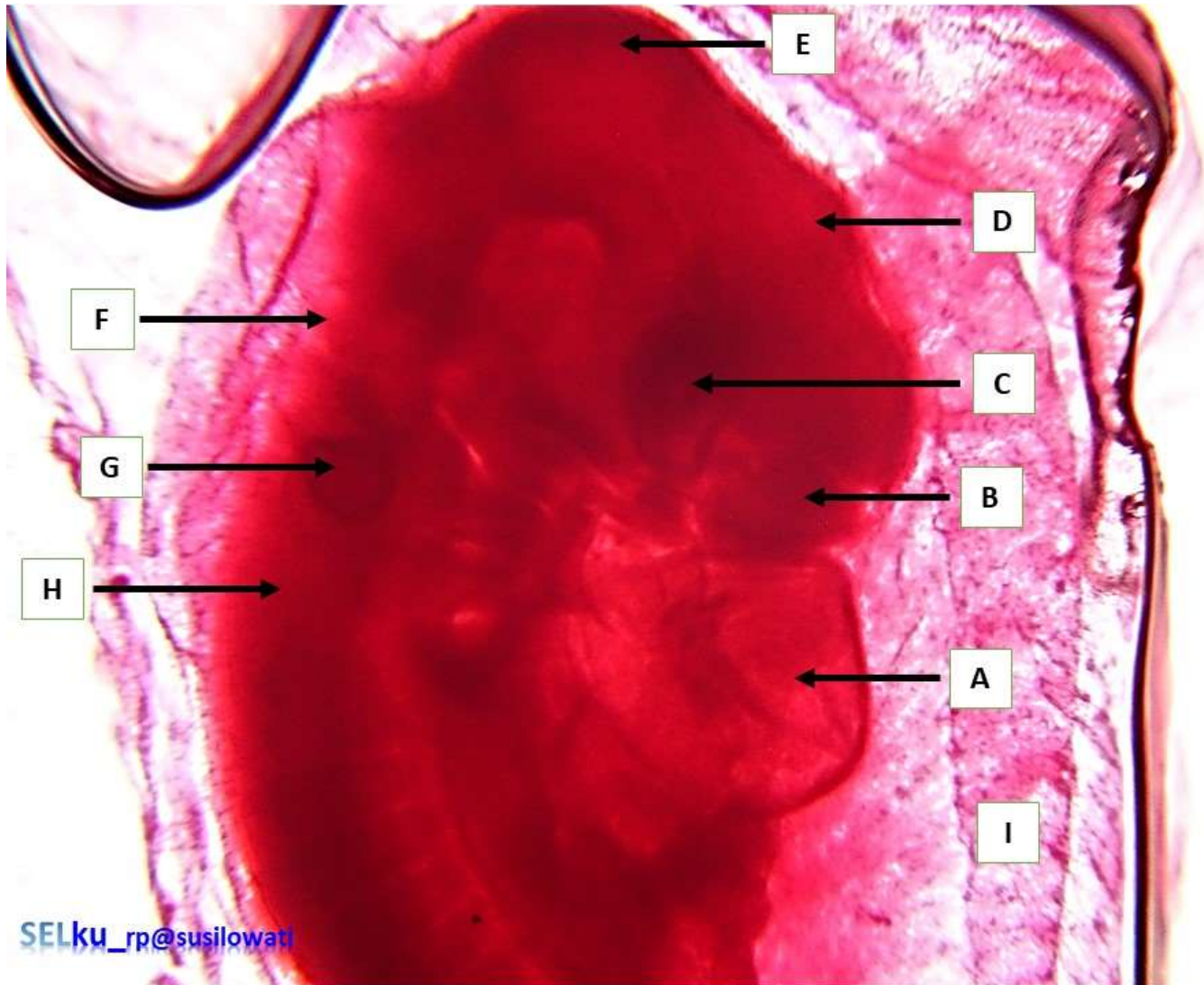
REVIEW 05



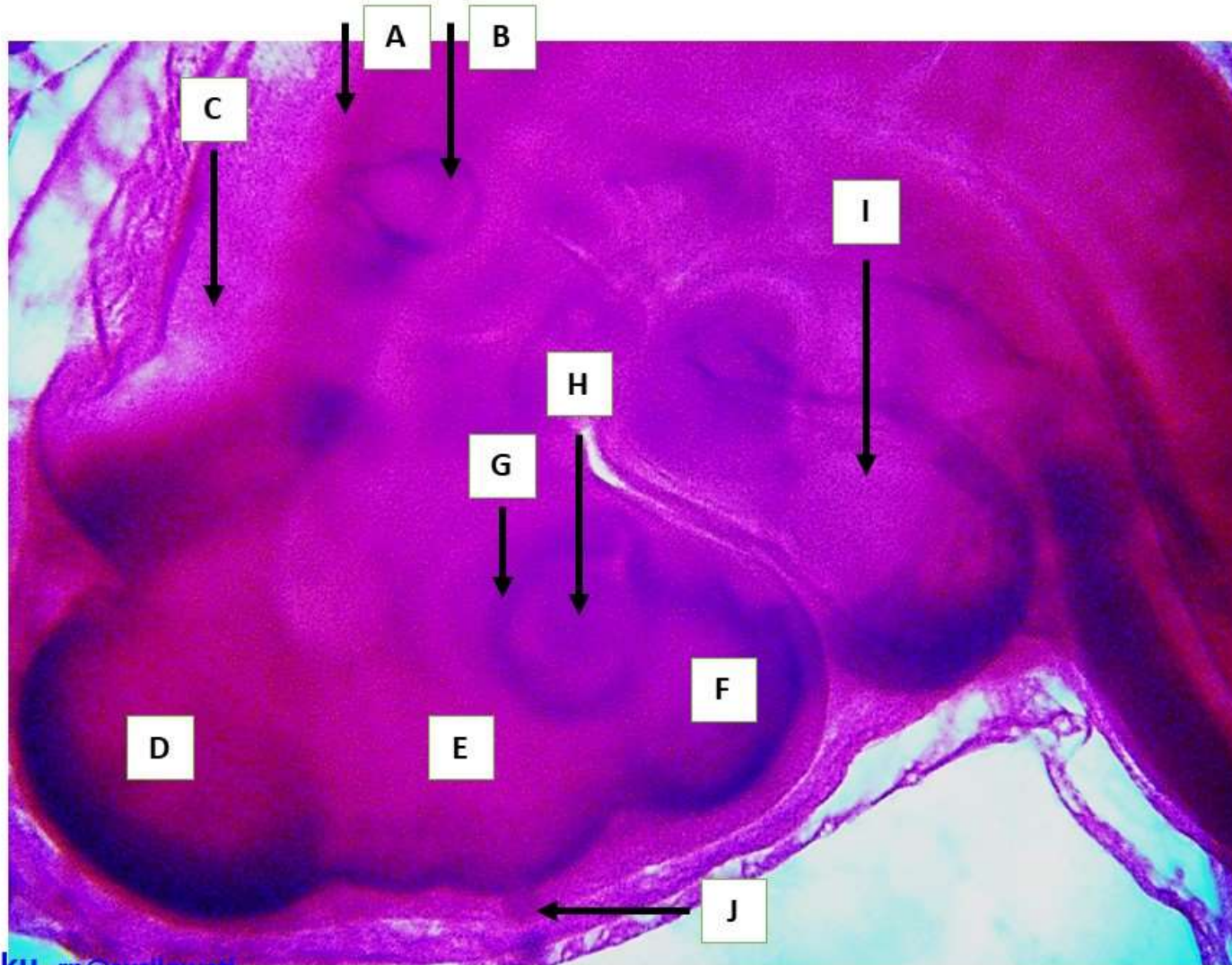
REVIEW 06



REVIEW 07



REVIEW 08



REVIEW 09

