

REPRODUKTIV TIZIM

1. Menstruatsiya - barchadan endometriysi

2ta fazani boshdan kechiradi

1-faza: Proliferativ (Esterogen ta'sirida)

2-faza: Sekretor (Progesteron ta'sirida)

MUHAMMAD UMAR'S NOTES

• Proliferativ fazada endometriy hujayralari esterogen ta'sirida giperplaziya uchraydi, natijada endometriy hajmi kattalashib boradi.

- ovulation -

• Sekretor fazada Progesteron ta'sirida boshdan sekret ajratib chiqarib, uning hajmi

hujayralari oshib, natijada hajmi

ketadi, agar hujayra uning hajmi

progesteron ta'sirida oshib, natijada hajmi

• menstruatsiya - barchadan ovulation

EMBRIOGENEZ

Tuxum hujayra va urug hujayra qoshilishidan boshlanadi. Zigota hosil bolishidan

o FERTILIZATION (tuxum + sperm ⇒ ZIGOTA)

- spermatozoid (n, c)

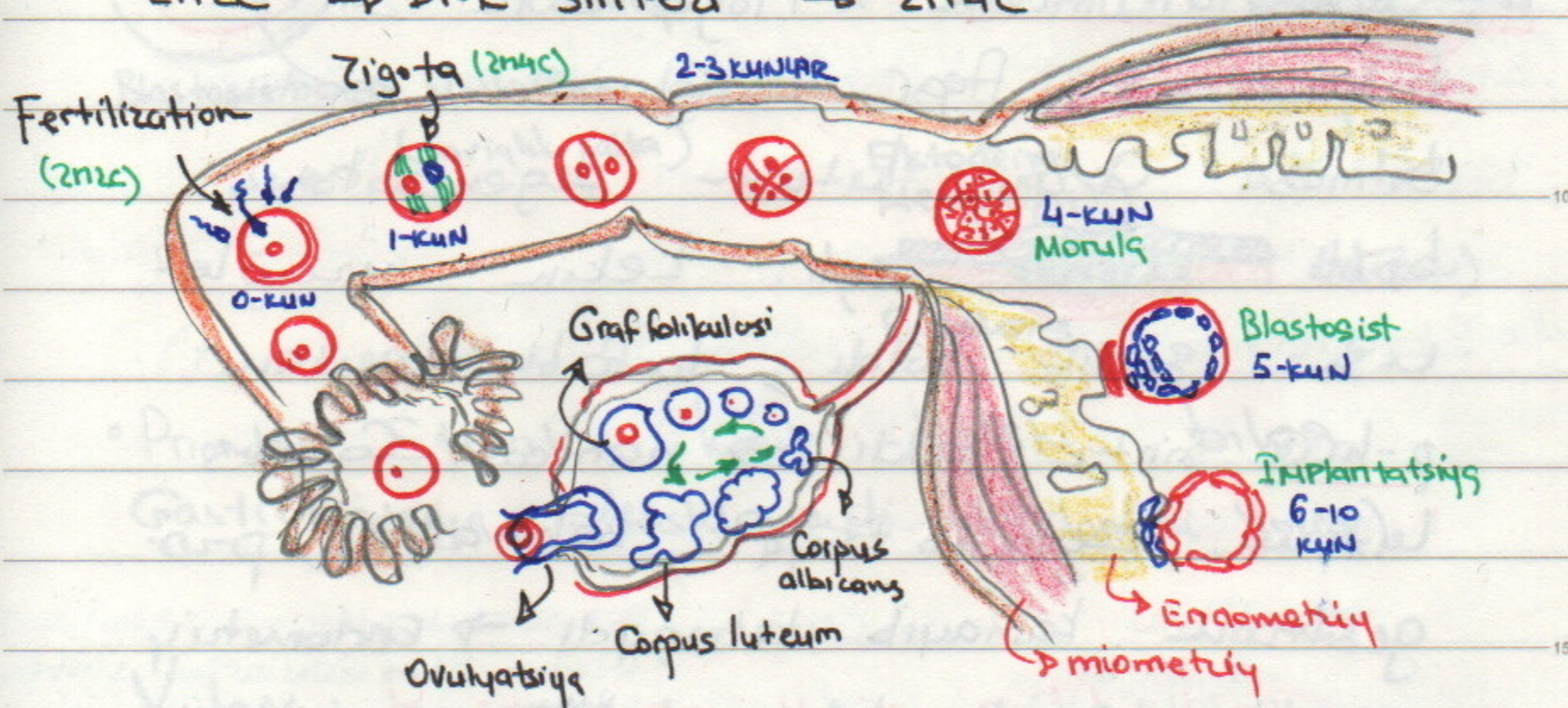
c - DNK

- tuxum hujayra (n, c)

N - xromosomlar

- Zigota (2n2c)

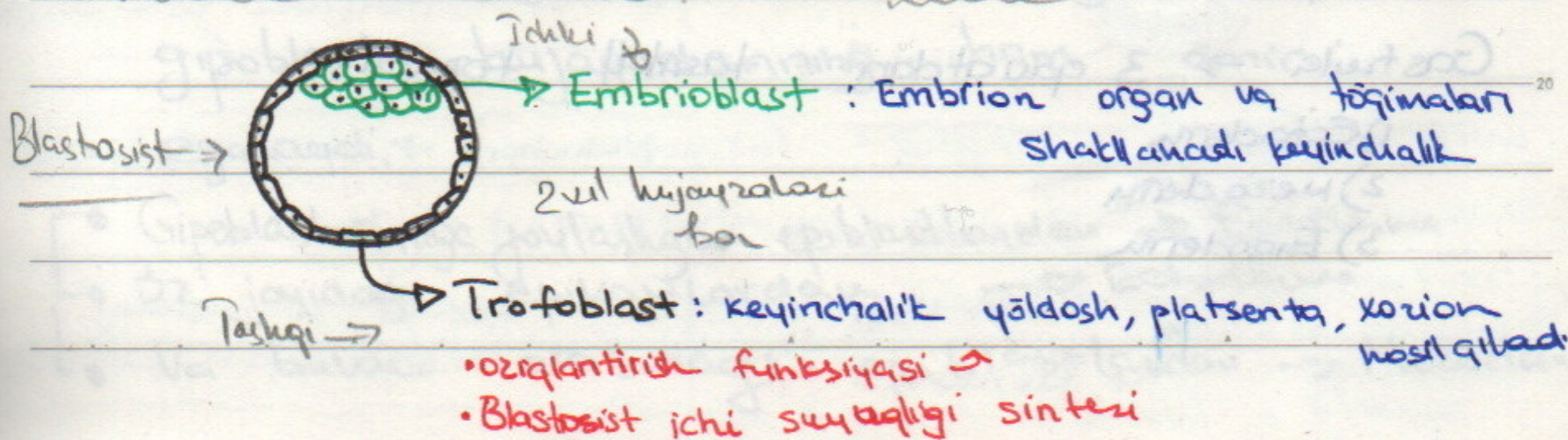
2n2c → DNK sintezi → 2n4c (92)



o Morula → Blastula → Blastosist (ocamlarda)



→ Blastosele



o Implantatsiya davri (6-10 kunlar)

→ Trofoblast hujayzalaridan β -hCG sintez bəldi

(β -human chorionic gonadotropin)

β -hCG funksiyasi



Tuxumdonndagi → Corpus luteum (Sarıq tana) ni degeneratsiya bəlib ketishini oldini olib turish

! Corpus luteumdan → Progesteron sintezini

bəlor edi. Agar uruqlanish sodir

bəlməse Corpus luteum degeneratsiya

bəlib ketər edi. Ləkin uruqla-

niş sodir bəldi, trofoblastlardan

β -hCG sintez bəldi → nəticədə Corpus

luteum degeneratsiya bəlməyedi, pro-

gesteron kamayib ketməyedi → Endometriy

qavati kəşib ketməydi ***

o GASTRULYATSIYA DAVRI

BLASTULADAN → GASTRULA HOSIL BƏLİSH JARAYONI

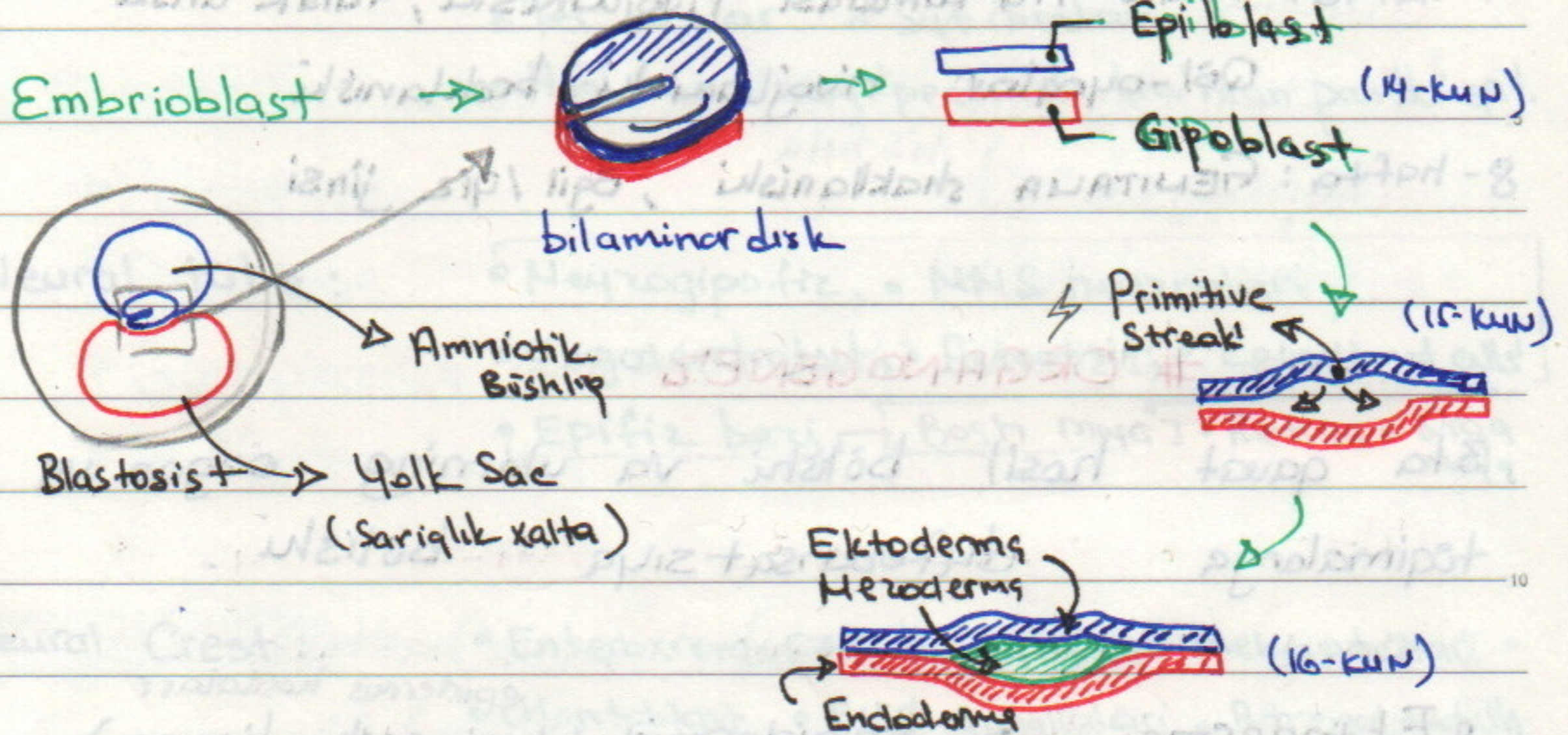
Gastrula → 3 qavattan təşkil topadi:

- 1) Ectoderm
- 2) Mezoderm
- 3) Endoderm



Blastositning **embrioblast** hujayzalaridan:

- bilaminar disk hosil b'oladi
- bilaminar diskdan trilaminar disk hosil b'di
- trilaminar → 3 qavat (endo, mezo, ecto) h'tb



• Primitive Streak hosil b'olishi bilan Gastrulyatsiya boshlanadi. (Birlamchi Yoriq)

Xulosa: Barcha qavatlar epiblastlardan

hosil b'oladi. Epiblast primitive streaki

(birlamchi yoriq) orqali ichkariga invaginatsiya

b'oladi, invaginatsiya b'olib kirgan epiblastlar

gipoblast hujayzalarining ham omiri

egallaydi.

- Gipoblast o'rniga joylashgan epiblastlardan → Endoderm
- O'z joyidagi epiblastlardan → Ectoderm
- Va bular orasidagi epiblastlardan → Mezoderm

1-hafta: Implantatsiyadan song trofoblastlardan β -hCG sintezi

2-hafta: Bilaminar embrionik disk hosil bo'lishi

3-hafta: - Trilaminar embrionik disk hosil bo'lishi

- Notochord (New kordasi) shakllanishi

4-hafta: Yurak 4ta kamerasi rivojlanishi, Yurak urishi

Qo'l-oyoqlar rivojlanishi boshlanishi

8-hafta: GENITALIA shakllanishi, o'g'il / qiz jinsi

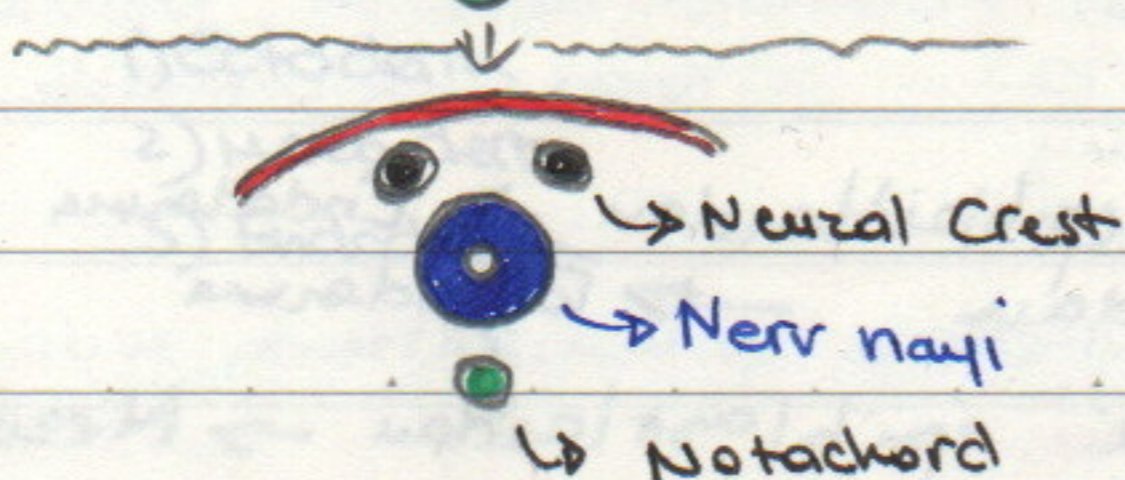
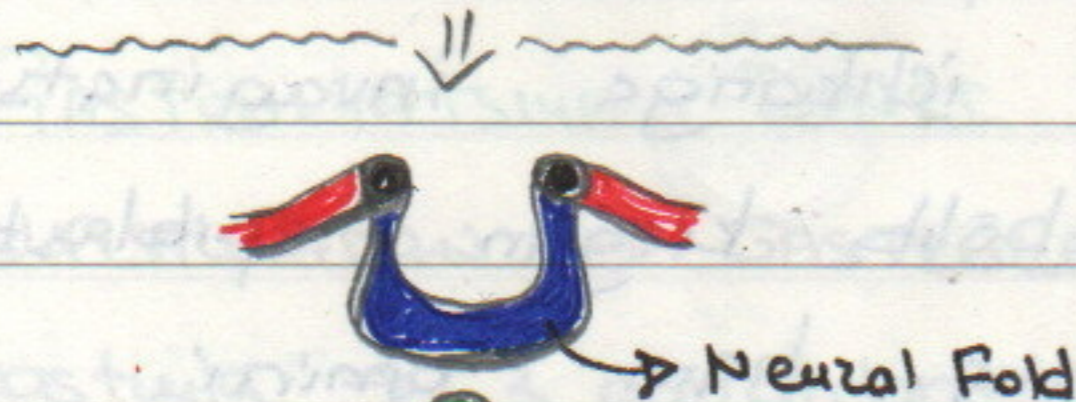
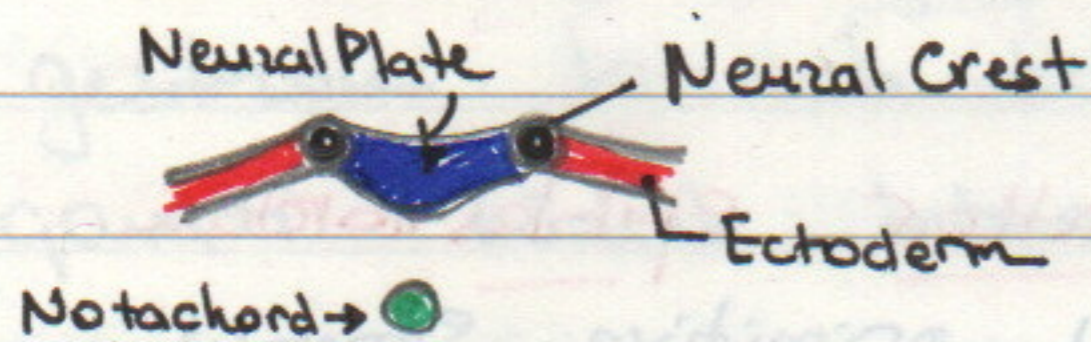
ORGANOGENEZ

3ta qavat hosil bo'lishi va ularning organ va

tqimamalarga differentsiatsiya bo'lishi.

o Ektoderma \rightarrow o Epidermis (teri, soch, tirnoq)
o Nerv sistemasi

MNS Rivojlanishi:



• Notochord mezodermdan hosil b-di
• Ozidan SHH Genlarini sintez qilib, ustidagi ektodermaga ta'sir qiladi

• Ektodermadagi nerv to'qima. Sini \rightarrow Neural Foldga

va uni \rightarrow Nerv Nayiga differentsiatsiyasini ta'minlaydi.

Notochord \rightarrow Nucleus Pulposus

N. Crest va N. Nayi

Bir qancha tqimamalarga differentsiatsiyalanadi

Ectoderm:

- Surface ectoderm
- Neural tube
- Neural crest

- Surface ectoderm:

- Adenogipofiz, • Gavhar, • Oral epiteliy
- Koxlear va Vestibulyar apparatlar
- Hid bilish epiteliyasi • quloq oldi solak bezi
- Ter bezlar • Svt bezlar
- Anal kanalining 'pectinate line' dan pastki epit.

- Neural tube:

- Neyrogipofiz, • NNS neyronlari,
- Oligodendrotsit, • Astrotsit, • Epindemal cells
- Epifiz bezi → Bosh miya • Retina • Orqa miya

- Neural Crest:

- Enterokromaffin hujayralari • Melanotsitlar
- Odontoblast • PNS gangliolari • Adrenal medulla
- Shvann huj/ • Spiral membrane (Aortic-Pulmonary septum)
- Endocardial cushions • Skull bones

ENDODERM:

- GIT ichki epiteliyasi, • Jigar, • St pufak
- Pancreas • alveolar, • traxeya / bronx epiteliyasi
- uretra • distal vagine • yekstakiy uari
- Timus • Paratireoid • tireoid follikulalar
- Parafollikular [C] cells

MESODERM:

- Muskul • Suyak • Birlitir toqirime
- Kardiovaskulyar tuzilmalar • Buzaqlar
- Vagina • Limfa • Qont • tana boshliqlari;
 - Peritoneum
- Splen • Adrenal Cortex • Testes • Pericardium
- Traxeya toqayi • Tuxumdovl • Pleura

"VACTERL" simptom kompleksi → Mezodermal DEFEKTLAR

Vertebral defect

Anal atresia

Cardiac defect

Tracheo-

Esophageal

} fistula

Renal defects

Limb defects (bone / muscle)

Kulosa: Organogenez davrlari:

I-DAVR - Pre-embriyonik (0-2 hafta)

II-DAVR - EMBRIONIK (3-8 hafta) (organogenez)

III-DAVR - FETAL (9-haftadan → tug'ilguncha)

PRE-EMBRIONIK

EMBRIONIK

FETAL

→ FERTILIZATSIYA → GASTRULYATSIYA → O'SISH

→ BÖLINISHLAR → ORGANLAR SHAKLI. → YETILISH

→ MORULA → SEGMENTAR JOYL.

→ BLASTOSIST

→ IMPLANTATSIYA