KEY Female Reproductive Anatomy (Part 2)

1. What do Granulosa Cells secrete and what kind of receptors do they have?

- Produce Estrogen from Testosterone
- Have FSH receptors

2. What do Theca Cells secrete and what kind of receptors do they have?

- Produce Testosterone
- Have LH receptors

3. What is the function of the Corona Radiata?

- Attaches cumulus oorphorus cells to ZP
- Directly communicates with oocyte

4. What happens before and after ovulation?

Before:

- basement membrane begins to degenerate
- physical separation between theca and granulosa cells becomes incomplete

After:

- blood clot forms
- follicle walls collapse
- theca and granulosa cells mix together
- only ovarian source of progesterone

5. What is known as the “bloody body”?

- Corpus hemorrhagicum (CH)

6. What is known as the “yellow body”?

- Corpus luteum (CL)

(progesterone is produced)

7. What is known as the “white body”?

- Corpus albicans (CA)

(degenerated corpus luteum leads to decreased progesterone)

Tubular Structures of FRT:

8. What do paramesonephric ducts develop into?

- Oviducts, uterus, cervix, and cranial vagina

Lumen	- Inner open space or cavity of tubular organ
Mucosa	- Epithelium (continuous with the lumen) - Layer of loose connective tissue - Band of smooth muscle
Submucosa	- Consists of moderately dense connective tissue - Contains blood, lymph, and nerves
Circular Smooth Muscle	- Contraction results in constriction of the lumen
Longitudinal Smooth Muscle	- Contractions result in the shortening of tube and propels the contents
Serosa	- Thin layer of cells enclosing body cavities - Prevents adhesion

9. What does the broad ligament do?

- Supports and suspend female reproductive tract
- Hold vascular supply, lymphatic drainage, and nerves

10. What are the three areas of the broad ligament and what do they do?

- Mesovarium: supports ovaries
- Mesosalpinx: supports oviducts
- Mesometrium: supports uterus

11. What is the Ampulla in an oviduct?

- First half of oviduct
- Large diameter
- Contains many folds and cilia
- Contracts toward uterus
- Moves oocyte to site of fertilization

12. What is the Isthmus in the oviduct?

- Second half of oviduct
- Small diameter
- Contains fewer folds and cilia
- Contracts toward ovary
- Moves sperm and oocyte to site of fertilization

13. What is the site of fertilization in an oviduct?
- Ampullary-isthmic junction

14. What are the functions of the oviduct?
- Transportation of sperm and oocyte to site of fertilization
- Reduce sperm numbers to prevent polyspermy
- Provides proper environment for oocyte, sperm, and fertilization
- Transport and facilitate development of early embryo

15. What are the layers of the Uterus?

Perimetrium
- Outer layer continuous with the peritoneum
- Blocks adhesions

Myometrium
- Inner circle of smooth muscle outer longitudinal layer
- Expulsion of fetus & sperm transportation by peristaltic contractions

Endometrium
- Mucosa and submucosa
- Provides point of placental attachment
- Uterine glands produce secretions for embryo development

16. What are the different types of uterus?
- Bicornuate: two uterine horns and small uterine body
- Simplex: no uterine horns and one uterine body (humans)

17. What are the functions of the cervix?
- Barrier to sperm
- Transport sperm (prevents polyspermy)
- Produces long strand of mucous (lubrication)
- Reservoir for sperm
- Blocking bacterial invasion during pregnancy
- Birth canal

18. What is the difference in cervical mucus under estrogen and progesterone?
- Estrogen: thin and watery, SIALOMUCIN “privileged pathway”
- Progesterone: thick and viscous, SALFOMUCIN

19. What is the Fornix Vagina?
- Pocket where spermatozoa are deposited
- Present in mare, ewe, doe, and cow (NOT in the sow)

20. What are the functions of the Vagina?
- Copulatory organ
- Birth canal
- Site of semen deposition

21. What are the external genitalia?
- Vulva
- Clitorial fossa