SI Session 1.1 9/3/19 Lectures: 8/28 and 8/30

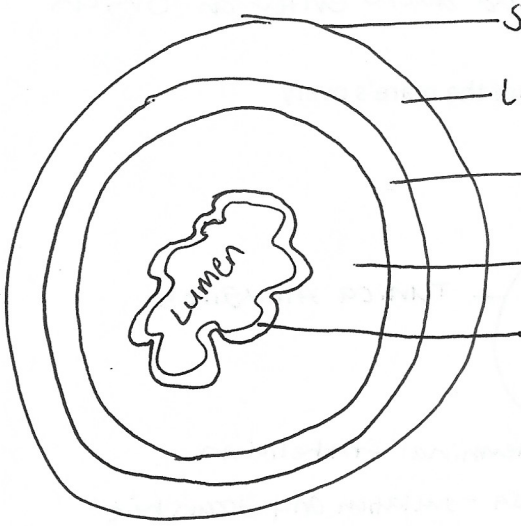
Nerves and Hormones control EVERYTHING in the body.

What is the purpose of physiology of reproduction?

1. Perpetuation of species
2. Providing products- food, milk, etc.
3. Genetic improvement

Draw, label, and describe the 4 layers of tissue found throughout the female reproductive tract

Serosa → muscularis → submucosa → mucosa



Serosa - thin layer enclosing body cavities, prevents adhesions

Longitudinal smooth muscle - contraction = peristalsis (propelling waves)

Circular smooth muscle - contraction = lumen constriction

Submucosa: CT containing blood, lymph, and nerves

Mucosa - secretory layer on inside of tubular portion

What is special about the peritoneum?

rectum + uterine horns sink into peritoneum to form broad ligament

Describe the function and 3 parts of the broad ligament:

1. Mesovarium: supports ovaries
2. Mesosalpinx: supports oviducts
3. Mesometrium: supports the uterus

The ovary:

Exocrine function: Sex cell (oocyte) production

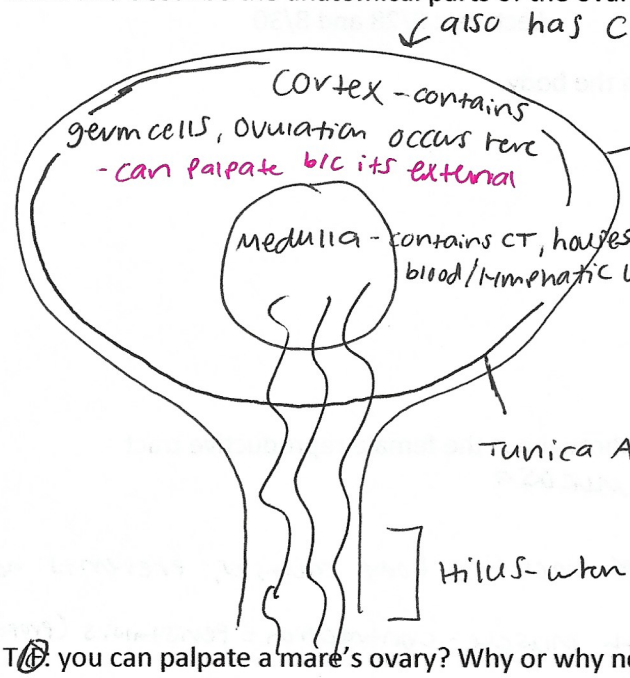
Product to tissue

Endocrine function: Follicle produces E_2

CL produces P_4

hormone directly to blood

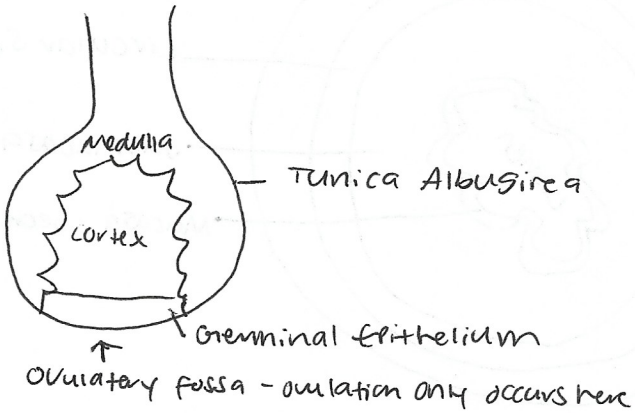
Label and describe the anatomical parts of the ovary:



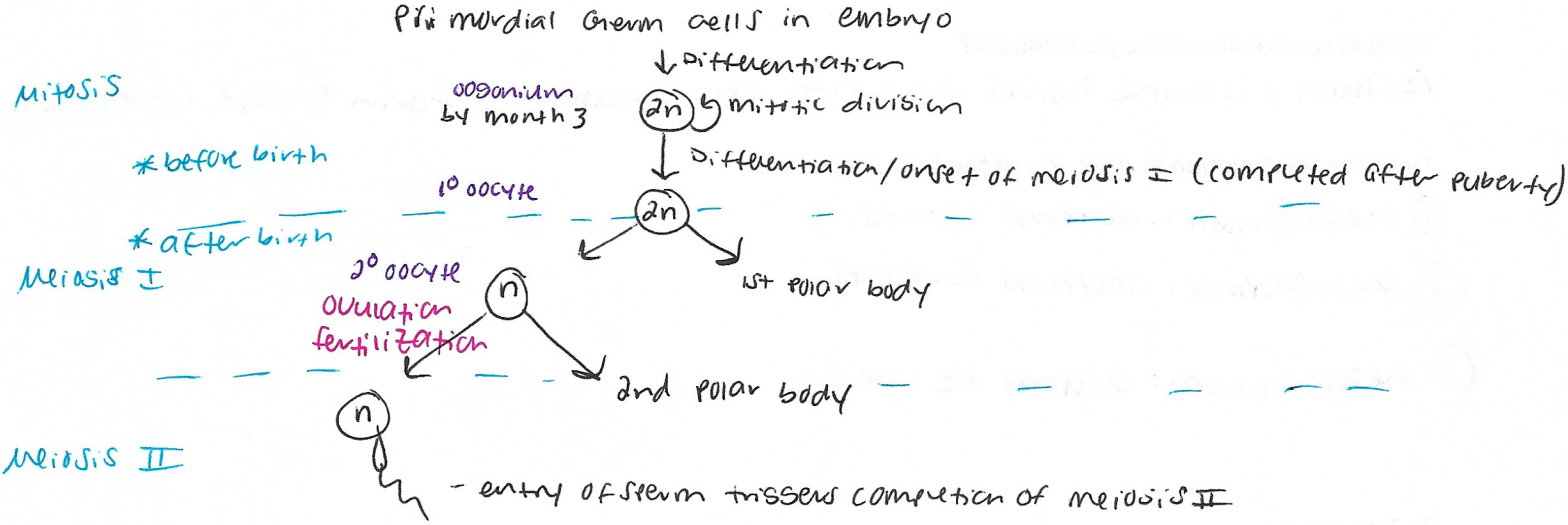
T/F: you can palpate a mare's ovary? Why or why not? Make a small sketch of the mare's ovary

NO, cortex/medulla are inverted

- need U.S. to see follicles b/c cortex is on inside



Draw Oogenesis:



Match the term with the correct definition:

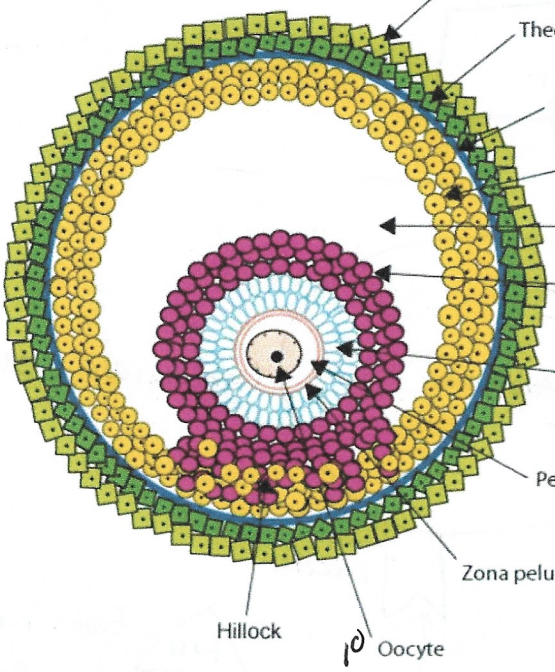
A Primordial follicle C Secondary follicle D Primary follicle B Antral Follicle

a. Primary oocyte surrounded by a single layer of squamous cells, smallest follicle in cortex
b. Antrum is present, consists of an oocyte, follicular fluid, granulosal cells, theca interna and externa
c. 2/more layers surround the oocyte, zona pellucida is present but the antrum is not
d. Primary oocyte surrounded by a single layer of cuboidal cells

(T)/F: a primary oocyte is housed in all stages of follicular development

(T)/F: All stages of follicles are present within an ovary at any time

Anatomy of a Graafian Follicle



Theca externa - line outside of follicular wall

Theca interna - produces T

Basement membrane - separates theca from Gran.

Granulosa cells - converts T → E2, lines inside of follicle wall

Antrum (liquor folliculi) - contains follicular fluid

Cumulus oophorus cells - Granulosa cells - surround oocyte

Corona radiata cells attach C.O cells to Z.P.

Zona pelucida surrounds oocyte and early embryo

Draw the 2-Cell/2- Gonadotropin Theory:

Big Picture: