

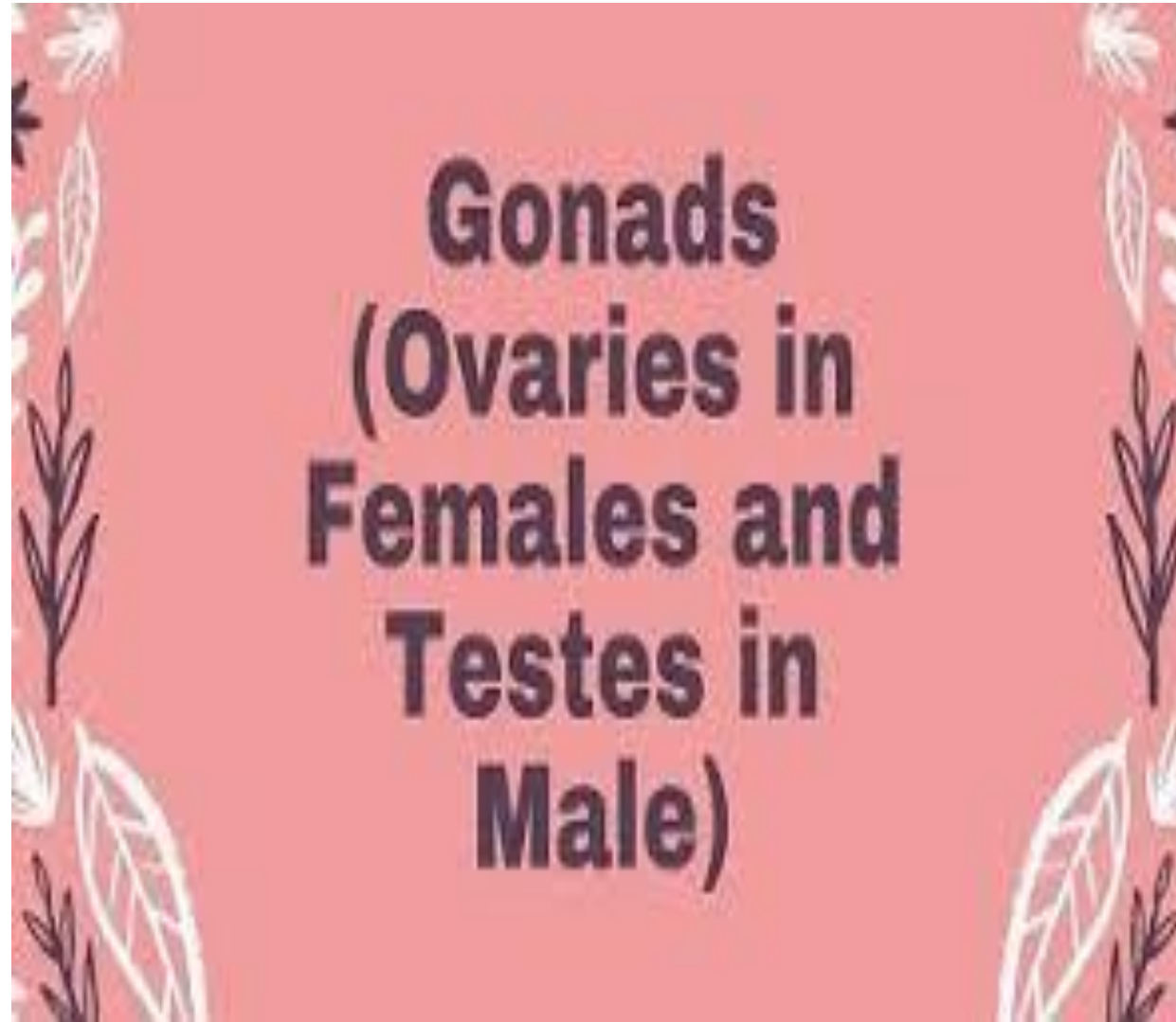
# فیزیولوژی اختصاصی، جلسه نهم

نقش های فیزیولوژیکی غدد جنسی

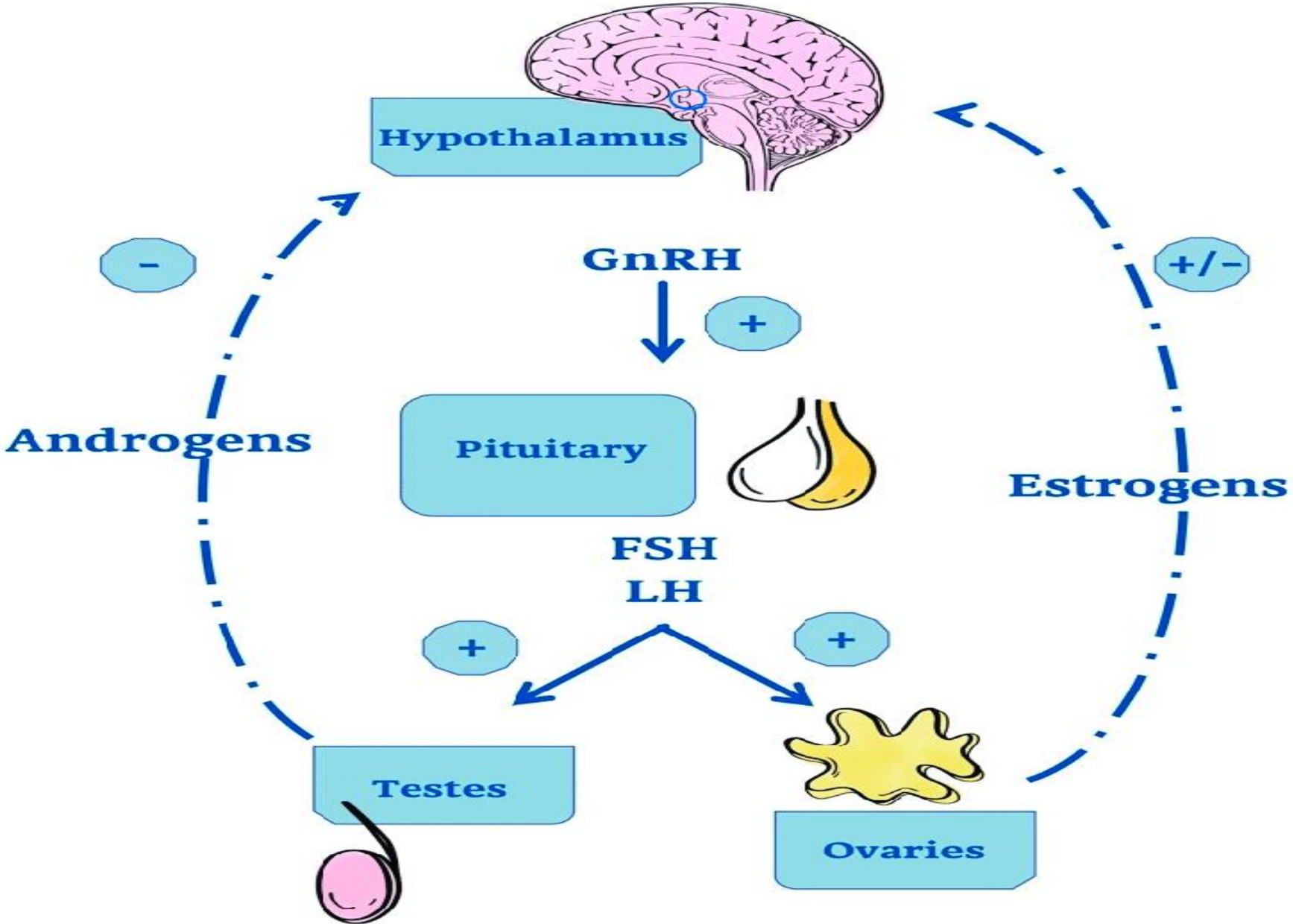
محور هیپوتالاموس-هیپوفیز-غده جنسی

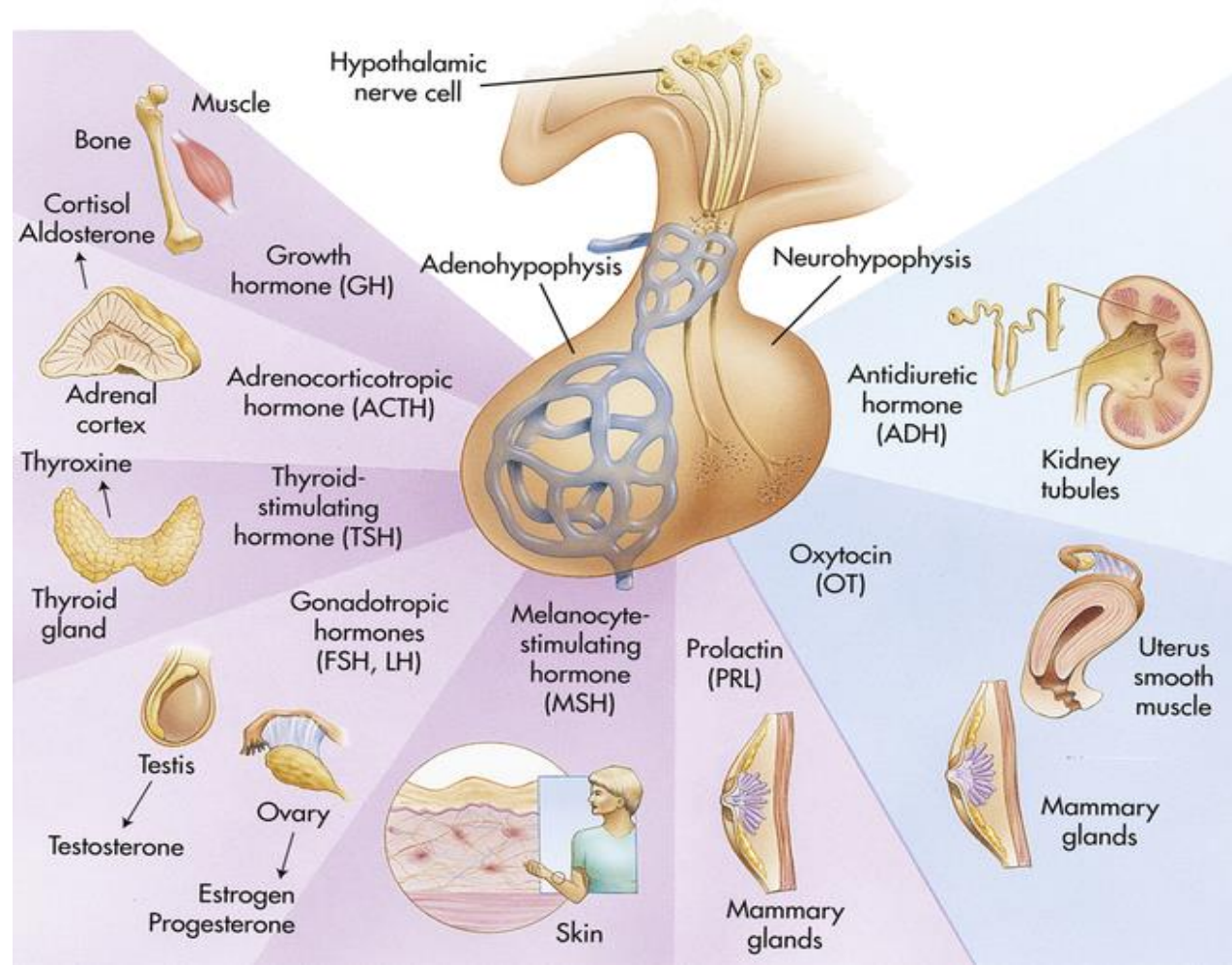
هیپوفیز و گنادوتروپین ها

Functions of:



**THE HYPOTHALAMIC-PITUITARY-GONADAL AXIS**



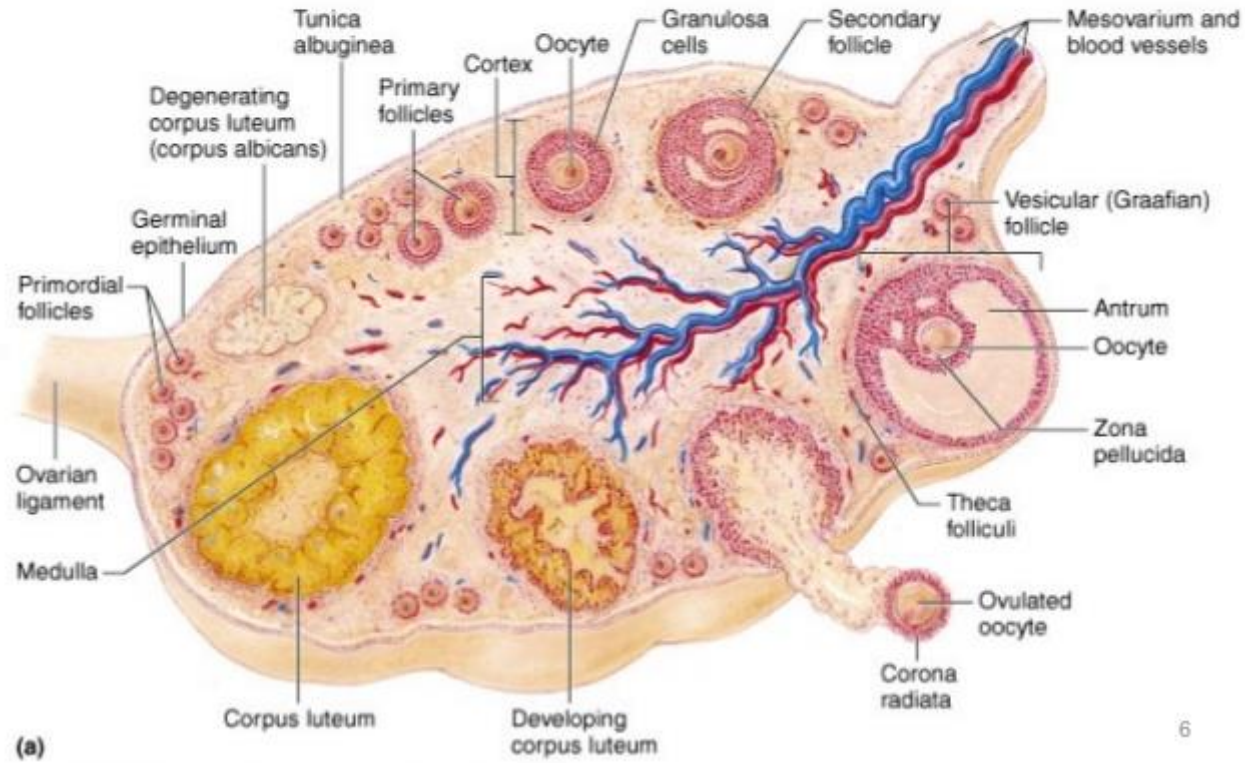


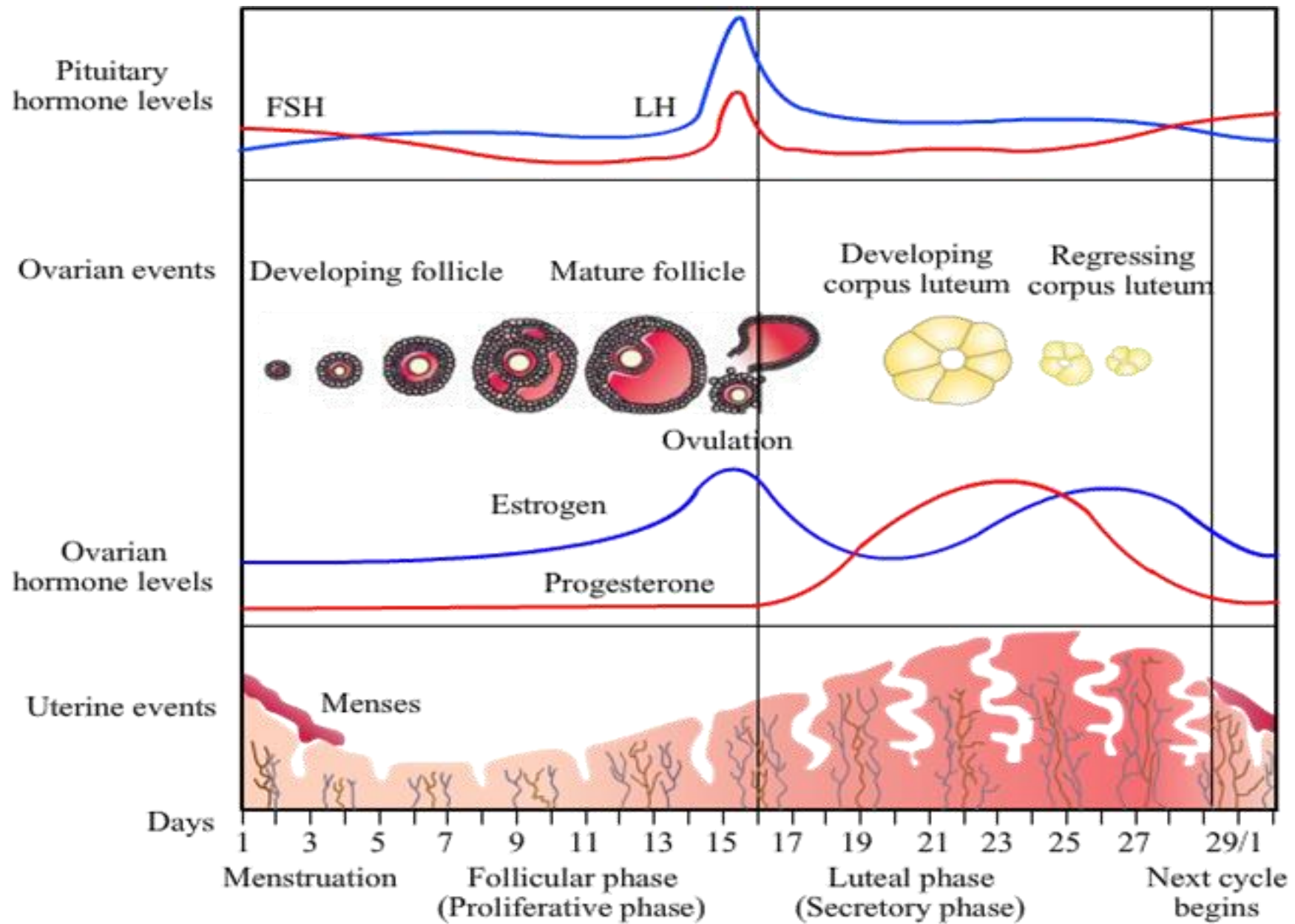
# فیزیولوژی اختصاصی، جلسه دهم

اثرات اختصاصی، عمومی و رفتاری هورمون های جنسی

ساختمان و دوره های فیزیولوژیکی تخمدان

# The ovary





# فیزیولوژی اختصاصی، جلسه یازدهم

چرخه فحلی و مراحل آن، رفتار فحلی،

انواع چرخه های فحلی، اهمیت فحلی یابی



## Estrous cycle? menstrual cycle?

- ❑ In estrous cycles, reabsorption of the endometrium occurs if conception does not occur during that cycle.
- ❑ Animals that have menstrual cycles shed the endometrium through menstruation instead.
- ❑ In animals with estrous cycles, females are generally only sexually active during the estrus phase of their cycle.
- ❑ This is also referred to as being "in heat."
- ❑ Females of species with menstrual cycles can be sexually active at any time in their cycle, even when they are not about to ovulate.



# STAGES OF ESTROUS CYCLE

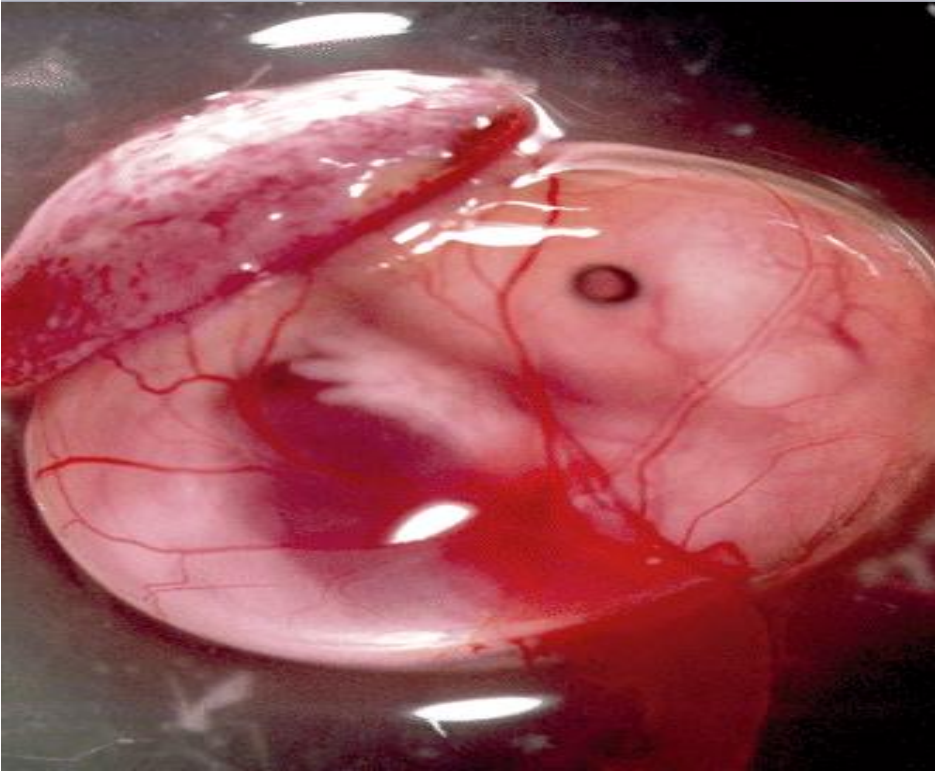
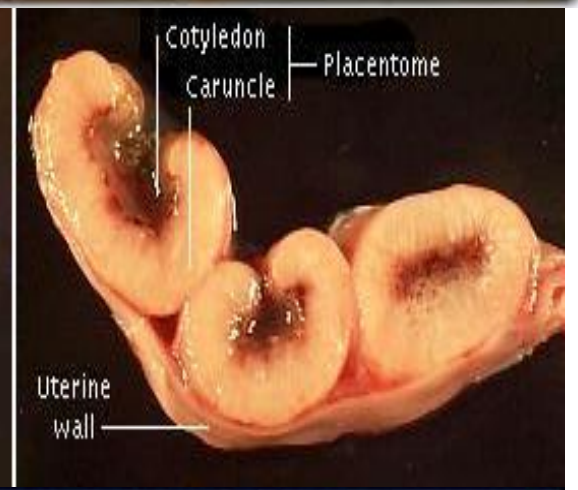
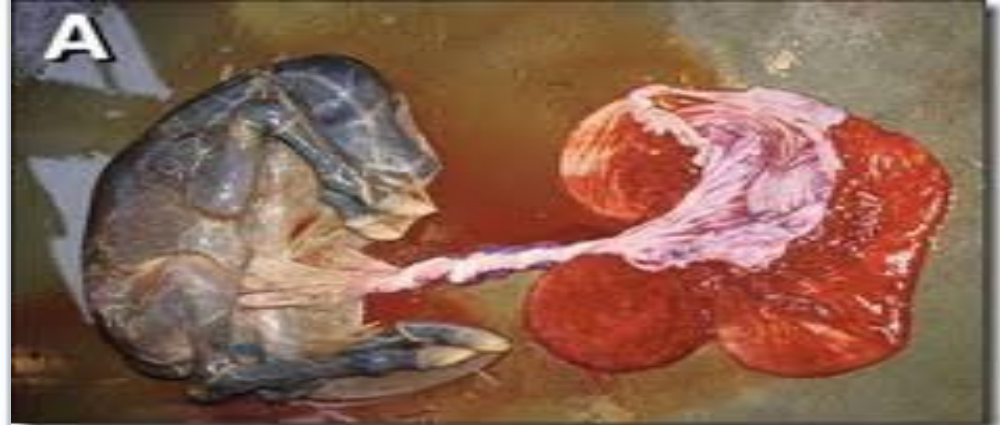
- **Four stages:**
  - **Proestrus**
  - **Estrus**
  - **Metestrus**
  - **Diestrus**
    - **Follicular phase = Proestrus + Estrus**
    - **Luteal phase = Metestrus + Diestrus**

# Estrous Cycle Intervals

- Polyestrous: animals that cycle continuously throughout the year if they are not pregnant (cattle and swine)
- Seasonally polyestrous: animals with seasonal variations in estrous cycles (horse, sheep, cat)
- Diestrous: animals with two cycles per year, usually spring and fall (dog)
- Monoestrous: animals with one cycle per year (fox and mink)

# فیزیولوژی اختصاصی، جلسه دوازدهم

آبستنی، جفت و نقش های فیزیولوژیکی آن، انواع جفت



## Functions of Placenta

### Nutritive function:

Glucose, iron, calcium, phosphorus, aminoacids, water, NaCl , vitamins and fatty acids

---

### Excretory Function:

products like urea, uric acid diffuse form foetal to maternal blood

Waste

### Immunological function:

foetus is antigenically a foreign body, the placenta protects the embryo and foetus from rejection. The MHC class I and II are not present on the placental trophoblast.

The

### Barrier Function:

large molecular weight substances cannot cross the placenta

Though

### Respiratory Function:

of oxygen and CO<sub>2</sub> between fetuse and mother. It is facilitated by three factors: HbF, Large quantity of Hb, Double Bohr effect

Exchange

# PLACENTAL FUNCTIONS

## *Endocrine function*

### Steroid Hormones:

- 1- Estrogens
- 2- Progesterone

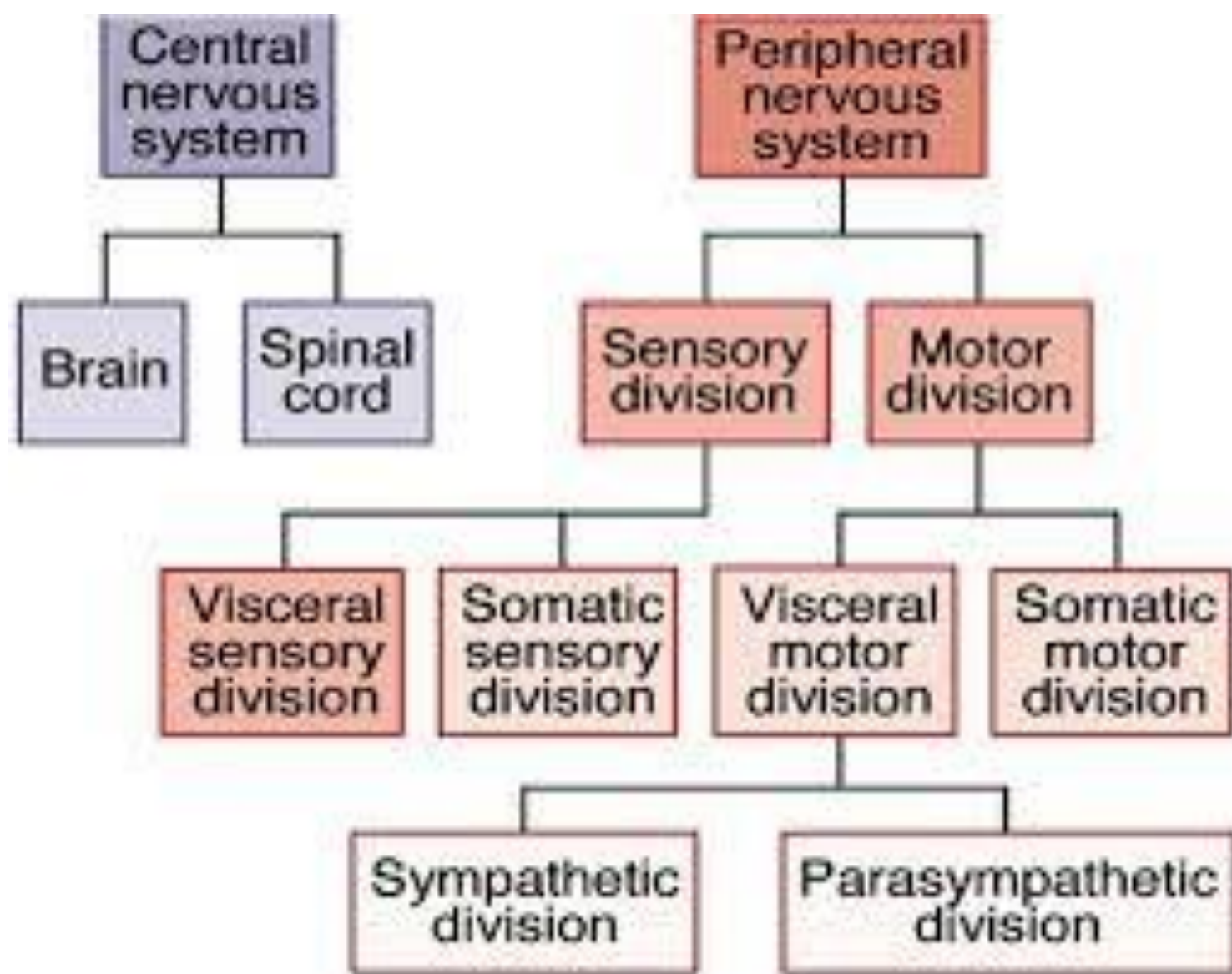
### Protein hormones:

- 1- Human chorionic gonadotrophin (hCG)
- 2- Human placental lactogen (hPL)
- 3- Human chorionic thyrotrophin (hCT)
- 4- Hypothalamic and pituitary like hormones
- 5- Others: inhibin, relaxin and beta endorphins.

# فیزیولوژی اختصاصی، جلسه سیزدهم

نگرشی بر دستگاه عصبی (قسمت اول)





## فیزیولوژی اختصاصی، جلسه چهاردهم

نگرشی بر دستگاه عصبی (قسمت دوم)

