



AL-Mustaqbal University College

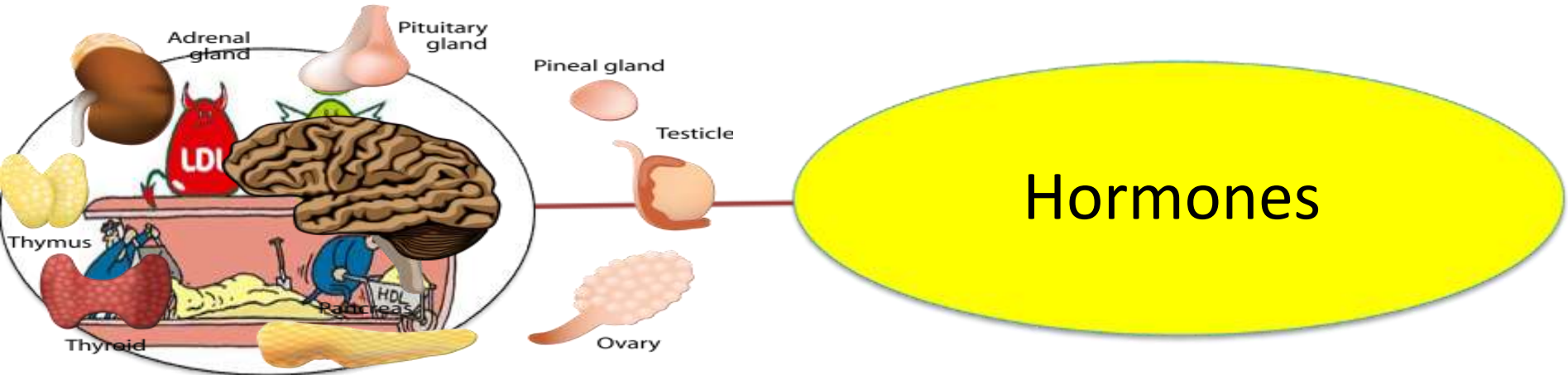


Medical laboratory Techniques Department

Clinical Biochemistry
Hormones



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Hormones are chemicals produced in the endocrine glands, which in turn control most major bodily functions from hunger to complex systems such as reproduction and even emotions and mood.

The principle in the presence of hormones is to achieve communication between the various organs of the body, as glands release these hormones into the bloodstream, and from the bloodstream they are transmitted to the relevant organs or tissues.



Hormones

- The arrival of the hormone in the relevant organ, a series of reactions take place within this organ or tissue, and it is worth noting that hormones are very strong chemicals, so you see a small amount of them that have a great and very important effect in the body.

Hormonal Functions

1. Regulating metabolic processes that occur within the body, including food-related metabolism.
2. Regulating the speed of chemical reactions in various cells of the body.
3. Stimulating certain substances to move themselves or move across cell membranes in the body.
4. Stimulating the growth and development of cells and tissues.
5. Control of human thirst.
6. Maintaining a constant body temperature.
7. Control of human mood and cognitive abilities.

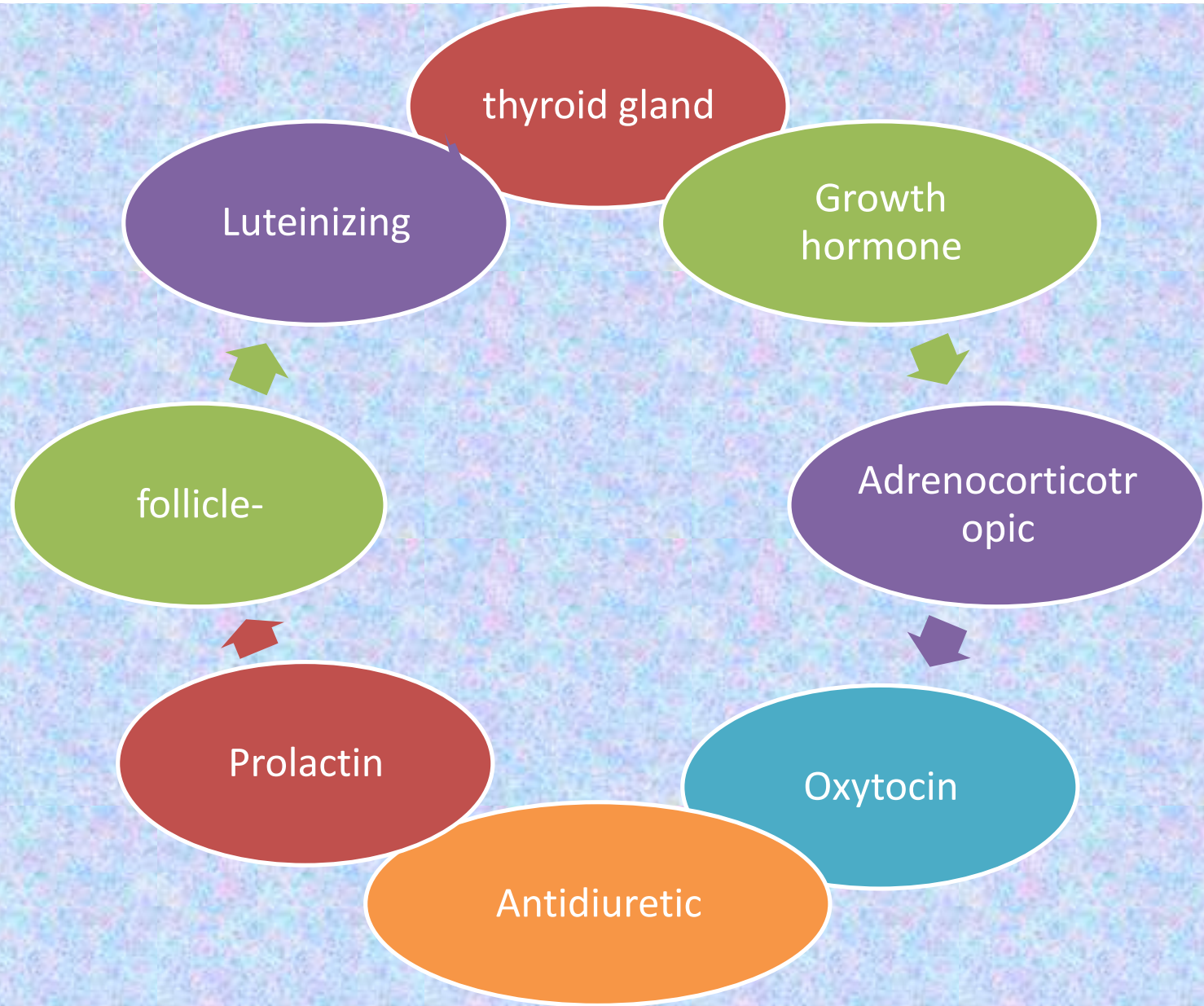
Types of hormones according to the gland

- ❑ Hypothalamus :- Is mainly responsible for stimulating or preventing the secretion of pituitary gland hormones.

The most important hormones of the hypothalamus :-

- ❑ Corticotropin-releasing hormone.
- ❑ Gonadotropin-releasing hormone.
- ❑ Growth hormone-releasing hormone.
- ❑ Thyrotropin-releasing hormone.

Pituitary Gland Hormones



Adrenal Gland Hormones

A. Adrenal Cortex.

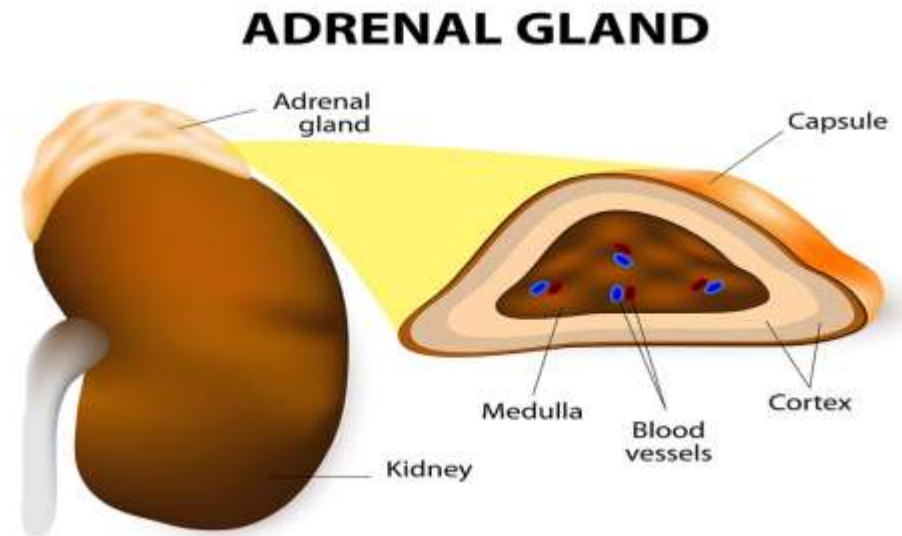
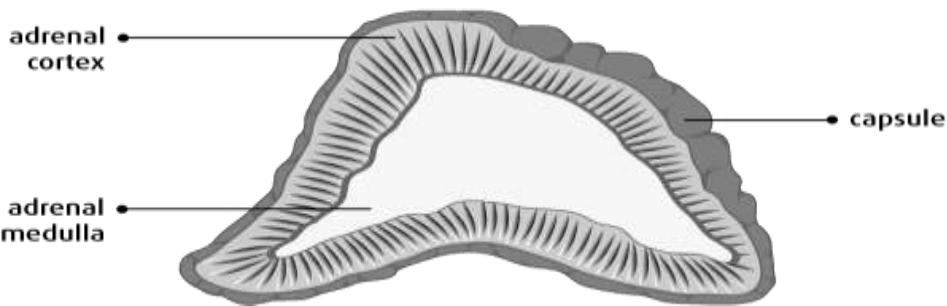
Corticosteroids, which are glucocorticoids, and mineralocorticoids.

B- Adrenal Medulla Or Medulla.

Adrenaline.

Norepinephrine.

Inside an Adrenal Gland



Thyroid Hormones

- A. Triiodothyronine, which accounts for 20% of its total secretion of hormones.
- B. Thyroxine-T4, which accounts for 80%.

Parathyroid hormone → The parathyroid gland

Pineal gland hormone → melatonin.

Thymus gland hormones → Thymosin



Pancreatic hormones

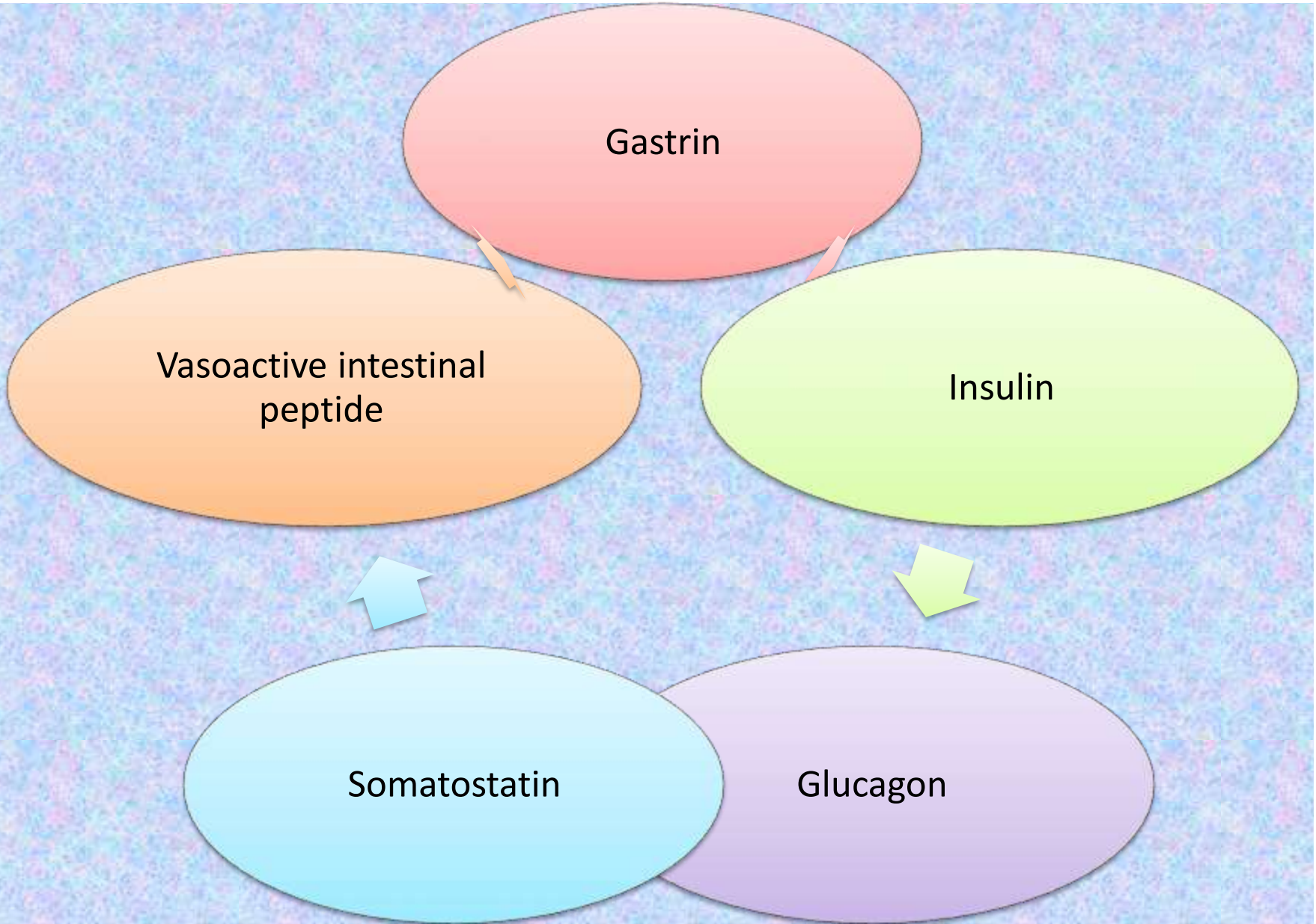
Gastrin

Vasoactive intestinal peptide

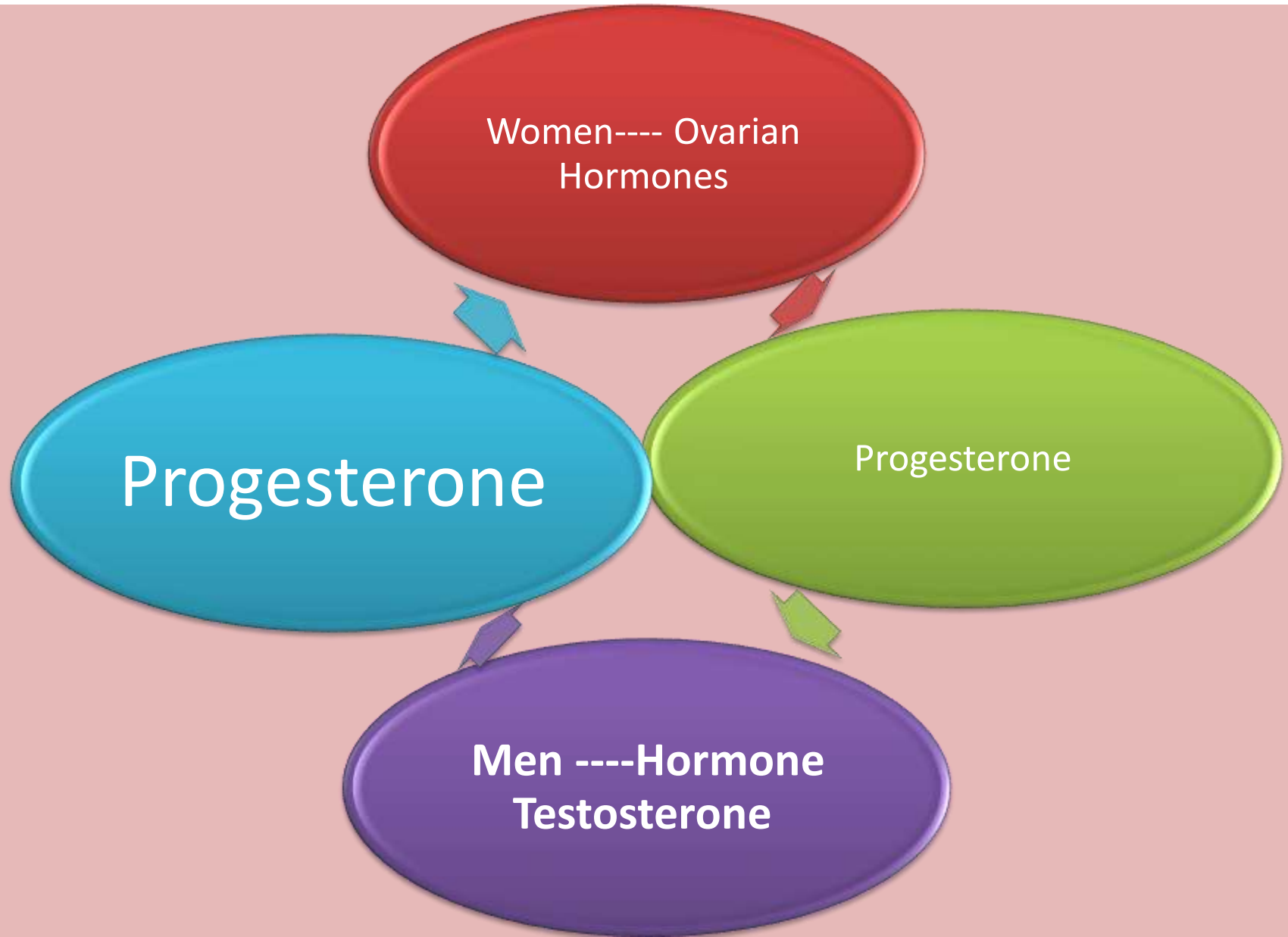
Insulin

Somatostatin

Glucagon



Genital hormones



Thank you for listening

Questions??

