

Gland is a group of cells or tissues, which secretes chemical substances, known as Glands. Largest gland is known as Liver, & second largest gland is known as Pancreas. Gland is of two types:

- Exocrine gland. (Duct-gland)
- Endocrine gland. (Duct-less gland)

Exocrine gland: - Most of the glands in the body of animals discharge their secretion through duct/ canal, known as Exocrine gland / or Glands of External Secretion; such as Liver, Pancreas, Sweat gland, Lachrymal gland, etc.

Endocrine gland: - Besides these in the body of vertebrates, there are certain glands which discharge their secretion not through the duct/ canal, but directly in to blood. These are known as Duct-less / Endocrine gland / Glands of Internal Secretion. These glands secrete internal secretions called Hormones / Autacoids, which influence & regulate various metabolic activities of body. First hormone is detected by Bayliss & Starling (Secretin hormone) First lab / Isolate hormone is detected by Stolz (1907) - A study of hormone is called Hormology or Endocrinology. A/c to Selye (1948)

"Hormones are the physiological & organic compounds produced by certain cells for the sole purpose of directing the activities of distant parts of the same organisms?" A/c to Huxley - Hormone is chemical messenger of body.

General characteristics of hormones

→ The hormones are secretions from duct-less glands, such as Pituitary gland, Thyroid gland, Adrenal gland, Thymus gland, etc.

- The hormones are soluble in water.
 - The hormones are organic chemicals but not of any particular type, as some are proteins, some are acid (Amino acid) & some are steroids.
 - The hormones are not stored, except in the glands of their origin.
 - The hormones are destroyed & excreted immediately after their role.
 - The hormones act upon the particular enzyme system.
 - The activity of hormones is directly or indirectly associated with vitamins, such as Parathyroid is associated to vitamin D.
 - The hormones are easily diffusible & possess low molecular weight.
 - The hormones don't possess antigenic properties.
- In the body of vertebrate including man the endocrine glands are the following:

- Pituitary gland / (Hypophysis)
- Adrenal gland, (Supra-renal gland)
- Thyroid gland,
- Parathyroid gland
- Islets of Langerhans. (Pancreas)
- Pineal gland
- etc.