



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

Sub: Life Science

Class: X

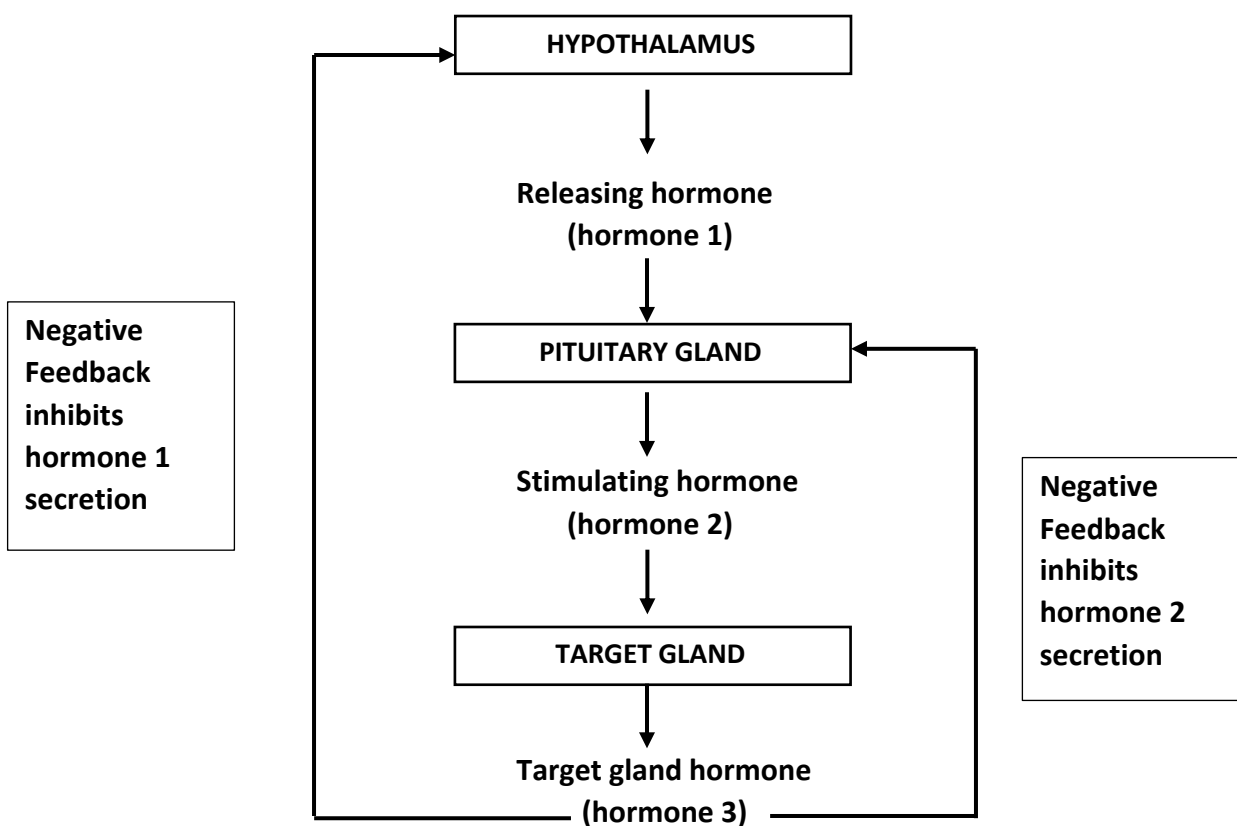
Date: 07.05.2020

CHAPTER: 1-CONTROL AND COORDINATION IN LIVING ORGANISMS

TOPIC: ANIMAL HORMONES

STUDY MATERIAL 4

➤ REGULATION AND SECRETION OF HORMONES THROUGH NEGATIVE FEEDBACK MECHANISM :



- Goitre is an enlarged thyroid gland. It can be associated with either hyperthyroidism (very high levels of thyroxine) or hypothyroidism (very low levels of thyroxine).

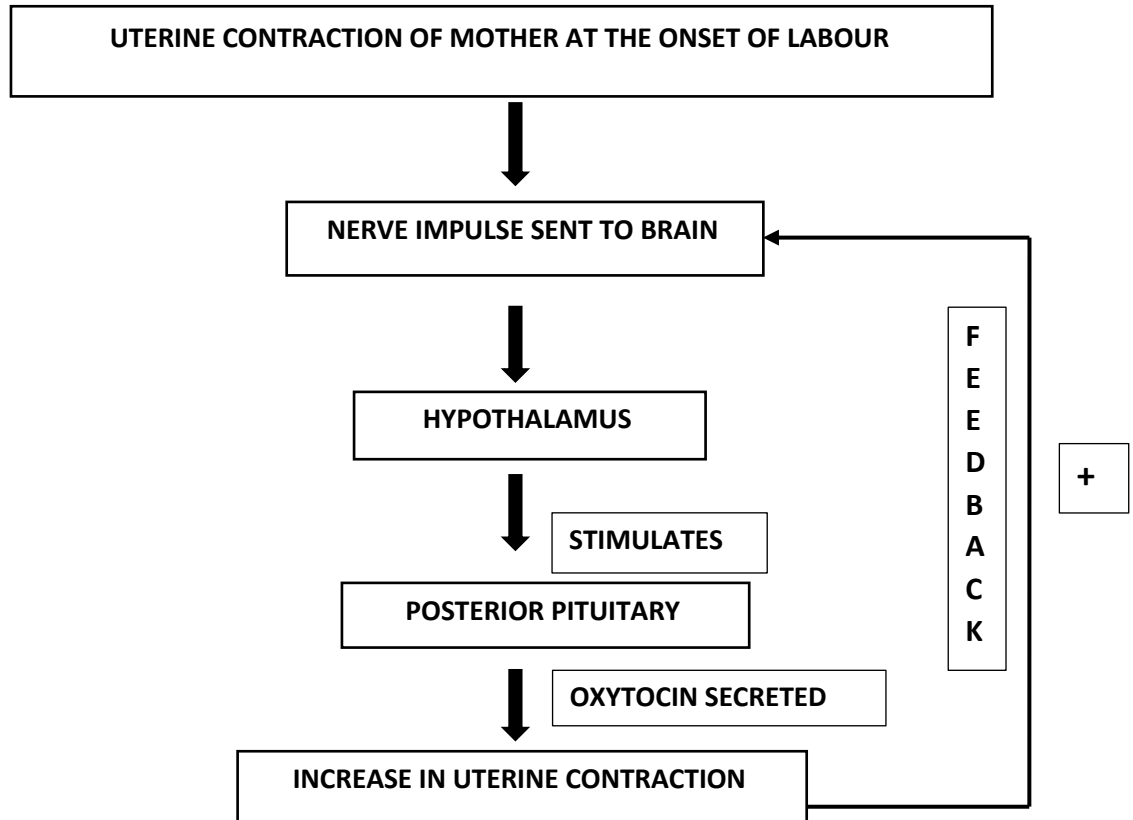
NORMAL SITUATION: Inactive form of thyroxine + iodine → active form (thyroxine)

HYPOTHYROIDISM: But if less iodine is available to the cells of thyroid gland due to lack of iodine in the diet, inactive form keeps on accumulating in the cells of thyroid gland leading to swelling of the gland. Moreover, the inactive form cannot send negative feedback to control the high level of TSH.

HYPERTHYROIDISM: This condition is caused due to overactive thyroid gland & its secretion. Though there is low level of TSH but still there is excessive secretion of thyroxine and

eventual swelling of thyroid gland as TSH is mimicked by another chemical which causes the thyroxine secretion.

➤ **REGULATION AND SECRETION OF OXYTOCIN HORMONE THROUGH POSITIVE FEEDBACK MECHANISM :**



➤ **REGULATION OF BLOOD GLUCOSE LEVEL BY INSULIN & GLUCAGON:**

