

# The Pituitary

Sits in hypophyseal fossa: depression in sella turcica of sphenoid bone

Pituitary secretes 9 hormones

Two divisions:

- Anterior pituitary (adenohypophysis)

1. TSH
2. ACTH
3. FSH
4. LH

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5. GH
6. PRL
7. MSH

*The first four are "tropic" hormones, they regulate the function of other hormones*

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- Posterior pituitary (neurohypophysis)

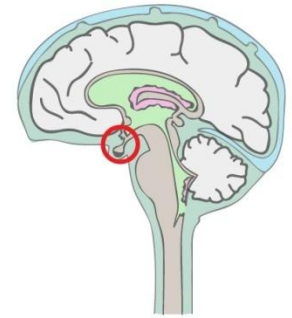
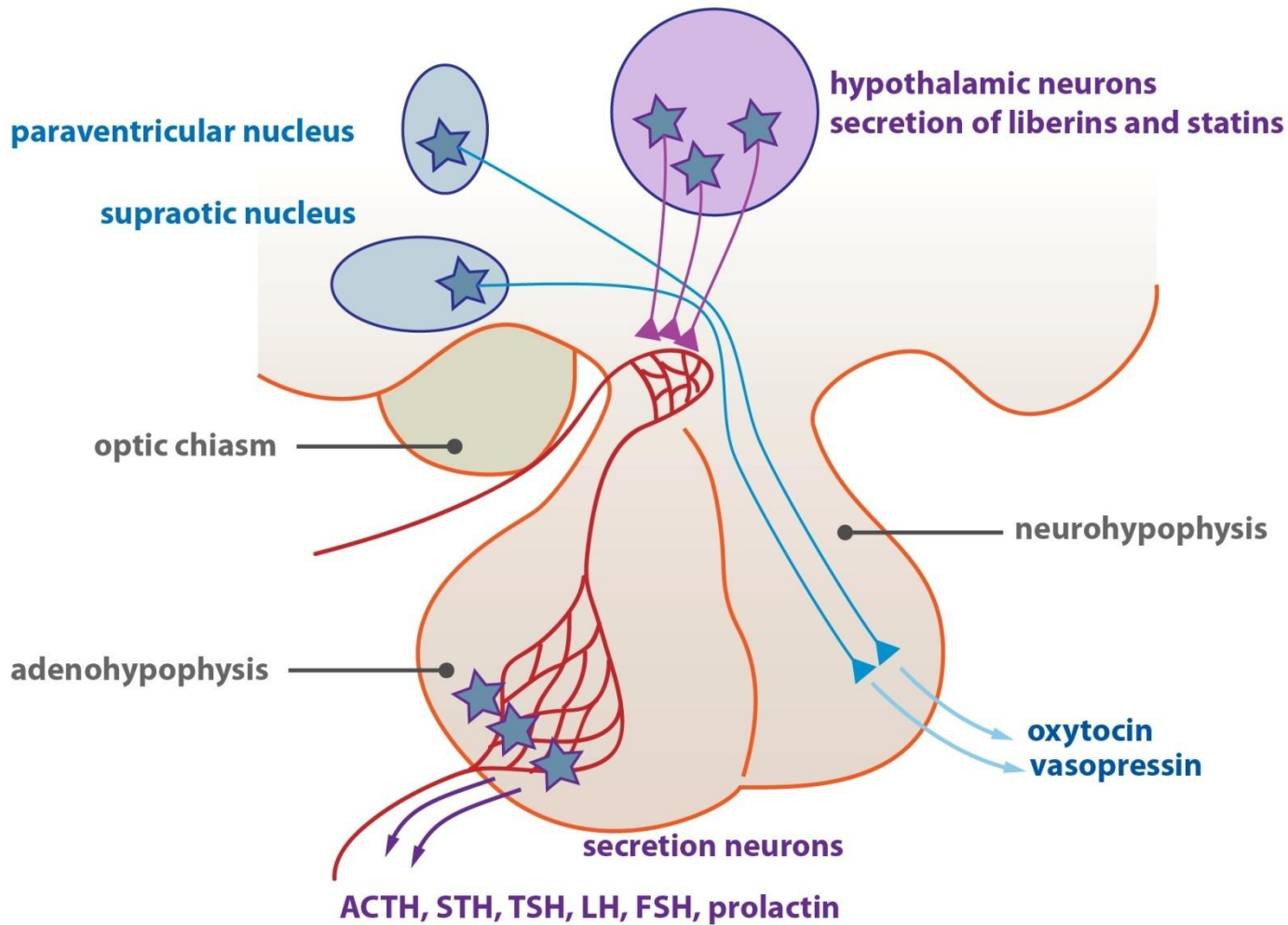
8. ADH (antidiuretic hormone), or vasopressin
9. Oxytocin

# What the letters mean...

- Releasing hormones (releasing factors) of **hypothalamus**
  - Secreted like neurotransmitters from neuronal axons into capillaries and veins to anterior pituitary (adenohypophysis)
  - TRH (thyroid releasing hormone)** -----turns on\* TSH
  - CRH (corticotropin releasing hormone)** -----turns on ACTH
  - GnRH (gonadotropin releasing hormone)** ---turns on FSH and LH
  - PRF (prolactin releasing hormone)** -----turns on PRL
  - GHRH (growth hormone releasing hormone)** ----turns on GH
- Inhibiting hormones of **hypothalamus**
  - PIF (prolactin inhibiting factor)** -----turns off PRL
  - GH (growth hormone) inhibiting hormone** ---turns off GH

*The hypothalamus controls secretion of hormones which in their turn control the secretion of hormones by the thyroid gland, the adrenal cortex and gonads: in this way the brain controls these endocrine glands*

# Structure-Function of the Endocrine Hypothalamus



# **HYPOPHYSIOTROPIC HORMONES**

**TRH**

**SST**

**GHRH**

**GnRH**

**CRH**

**PIF**

# **Control of Hypothalamic/Hypophysial Hormone Secretion**