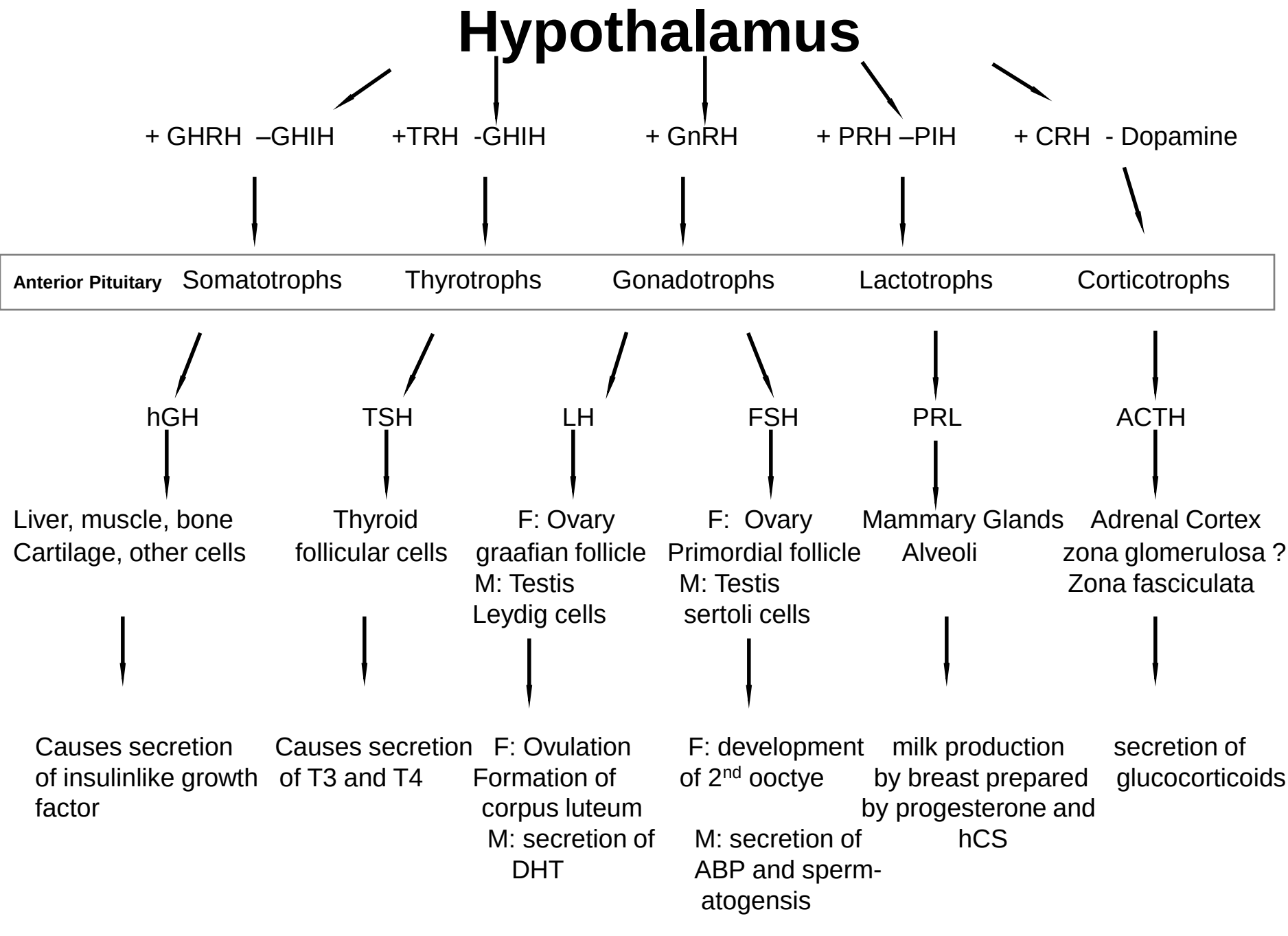
Hypothalamus
+ GHRH –GHIH
+TRH -GHIH
+ GnRH
+ PRH –PIH
+ CRH - Dopamine
Anterior Pituitary
Somatotrophs
Thyrotrophs
Gonadotrophs
Lactotrophs
Corticotrophs
hGH
TSH
LH
FSH
PRL
ACTH
Liver, muscle, bone
Cartilage, other cells
Thyroid
follicular cells
F: Ovary
graafian follicle
M: Testis
Leydig cells
F: Ovary
Primordial follicle
M: Testis
sertoli cells
Mammary Glands
Alveoli
Adrenal Cortex
zona glomerulosa ?
Zona fasciculata
Causes secretion of insulinlike growth factor
Causes secretion of T3 and T4
F: Ovulation
Formation of corpus luteum
M: secretion of DHT
F: development of 2nd ooctye
M: secretion of ABP and sperm-atogensis
milk production by breast prepared by progesterone and hCS
secretion of glucocorticoids

Insulin-like growth factor	**T3 and T4**	**F: progesterone and estrogen** **M: Testosterone and DHT**	**glucococorticoids**
Growth of body cells, protein synthesis, tissue repair, and increase in blood glucose	controls BMR, proteins sythesis glucose use, ATP production, lipolysis, accelerates growth	F: estrogen: 2nd female sex characterisitcs, increases protein anabolism, lowers blood cholesterol, inhibits GnRH, FSH, LH F: progesterone synergistic with estrogen to prepare endometrium for implantation, prepares mammary gland for milk production, inhibits GnRH and LH M: Controls male pattern of development, enlargement of penis and expression of 2nd sex characteristics, protein anabolism	control protein catabolism, Glucose snythesis, lipolysis, increases resistance to stress, anti-iflammatory, in high levels causes depression of the immune responses.