

# Reading Assignment 15 (Internal Regulation)

## Read This Information

Kalat Chapter 7 (11<sup>th</sup> edition or Chapter 1 (12<sup>th</sup> edition)

Casually read these sites:

<http://www.webmd.com/brain/chronic-fatigue-syndrome/myalgic-encephalomyelitis>

[http://en.wikipedia.org/wiki/Chronic\\_fatigue\\_syndrome](http://en.wikipedia.org/wiki/Chronic_fatigue_syndrome)

<http://www.webmd.com/a-to-z-guides/autoimmune-diseases>

## Know These Terms

|   |                                     |
|---|-------------------------------------|
| acromegaly                              | lateral preoptic nucleus            |
| adenohypophysis                         | Launois-Cleret syndrome             |
| adrenaline (epinephrine)                | limbic system                       |
| adrenocorticotrophic hormone            | magnocellular neurons (large)       |
| anterior                                | master endocrine gland              |
| anterior hypothalamic nucleus           | medial geniculate nucleus (MGN)     |
| audition                                | medial preoptic nucleus             |
| Babinski-Fröhlich syndrome              | medium spiny                        |
| basal ganglia                           | motivation                          |
| cerebral palsy                          | myalgic encephalomyelitis (ME)      |
| cortisol                                | neurohypophysis                     |
| CFIDS                                   | nuclei                              |
| Cushing's disease                       | pallidum                            |
| diabetes insipidus                      | paralysis of will                   |
| disinhibition principle                 | Parkinson's disease                 |
| dorsal thalamus                         | parvocellular neurons               |
| dorsomedial hypothalamic nucleus        | perceived threat                    |
| epithalamus                             | Pickardt-Fahlbusch syndrome         |
| eye movements                           | pituitary gland                     |
| fatal familial insomnia                 | pituitary stalk (infundibular stem) |
| fight-flight                            | posterior                           |
| foreign accent syndrome                 | reticular nucleus                   |
| Frolich's syndrome                      | secretes ACTH                       |
| ganglia                                 | secretes ADH (antidiuretic hormone) |
| GHRH                                    | secretes Beta-endorphin             |
| GnRH                                    | secretes FSH (follicle-\$ hormone)  |
| growth hormone-releasing hormone (GHRH) | secretes growth hormone (GH or HGH) |
| hemiballismus                           | secretes hormones                   |
| Huntington's disease                    | secretes LH (lutropin)              |
| hyperpituitarism (adenoma)              | secretes LTH (luteotropic)          |
| hyperthyroidism                         | secretes Oxytocin                   |
| hypopituitarism                         | secretes Prolactin (PRL)            |
| hypothalamic infantilism-obesity        | secretes TSH                        |
| hypothalamus                            | secretion of melatonin (pineal)     |
| inferior colliculus                     | sexual infantilism                  |
| kinesia paradoxica                      | sexually dimorphic nucleus          |
| Korsakoff's dyndrome                    | Sheehan syndrome                    |
| lateral geniculate nucleus (LGN)        | somatostatin                        |
| lateral hypothalamus                    | somatotropin                        |

|                                   |                             |
|-----------------------------------|-----------------------------|
| stress hormone                    | thalamus                    |
| striatum                          | thyroid gland               |
| substantia nigra                  | thyroid-stimulating hormone |
| subthalamic nucleus               | tuberal                     |
| superior colliculus               | vasopressin                 |
| suprachiasmatic nucleus           | ventral thalamus            |
| thalamic syndrome                 | ventro-medial hypothalamus  |
| thalamo-cortical-talamic circuits | VTA→NA reward system        |

## Answer These Questions

1. What is the relationship between the thalamus and the hypothalamus?
2. Describe internal regulation, including homeostasis, set point, negative feedback and allostasis.
3. Explain the hormonal changes during a menstrual cycle.
4. What is an autoimmune disorder? Please give an example.
5. What did you find difficult or confusing in this section? If nothing was difficult or confusing, what did you find most interesting?