

Open Peer Review on Qeios

Melatonin

National Cancer Institute

Source

National Cancer Institute. Melatonin. NCI Thesaurus. Code C2267.

A hormone involved in sleep regulatory activity, and a tryptophan-derived neurotransmitter, which inhibits the synthesis and secretion of other neurotransmitters such as dopamine and GABA. Melatonin is synthesized from serotonin intermediate in the pineal gland and the retina where the enzyme 5-hydroxyindole-O-methyltransferase, that catalyzes the last step of synthesis, is found. This hormone binds to and activates melatonin receptors and is involved in regulating the sleep and wake cycles. In addition, melatonin possesses antioxidative and immunoregulatory properties via regulating other neurotransmitters.