

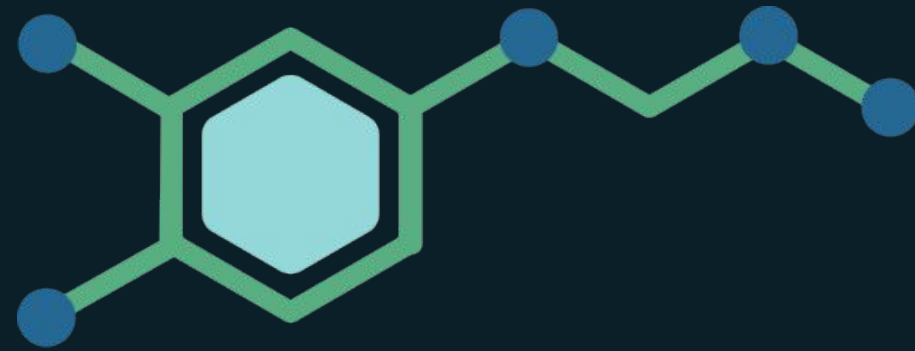
AP PSYCHOLOGY

**NEURAL FIRING:**

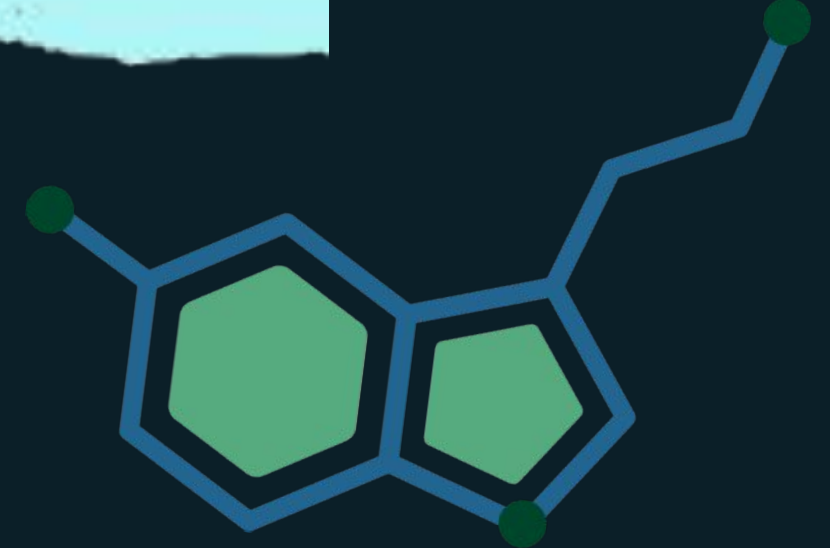
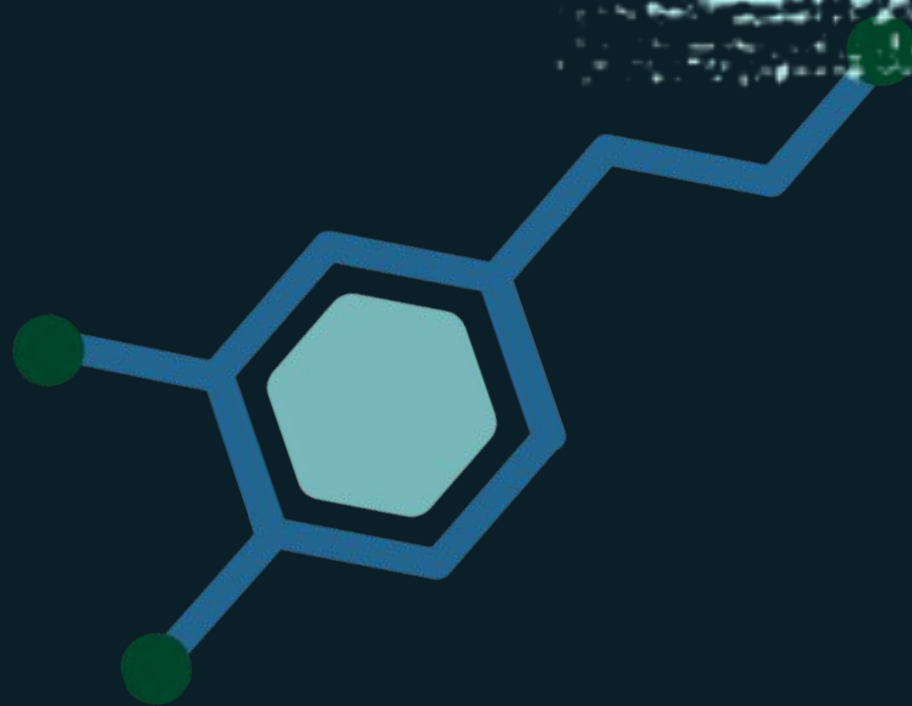
# Neurotransmitters & Hormones

Unit 1: Biological Bases of Behavior





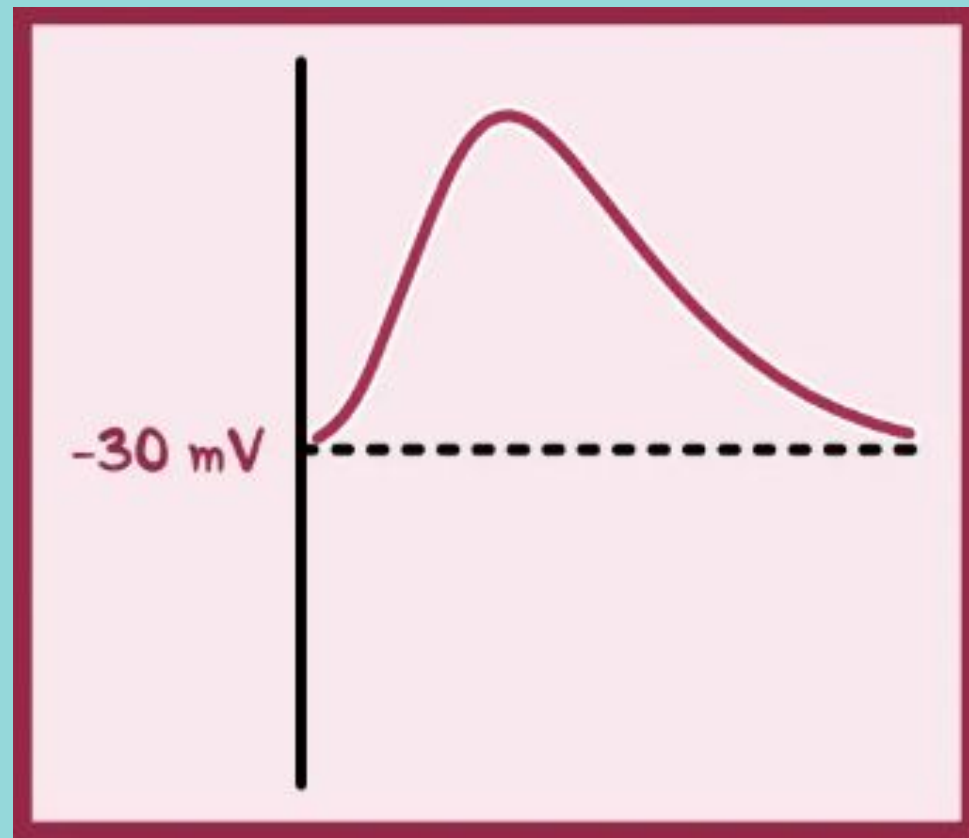
# Neurotransmitters



# FUNCTIONS OF NEUROTRANSMITTERS

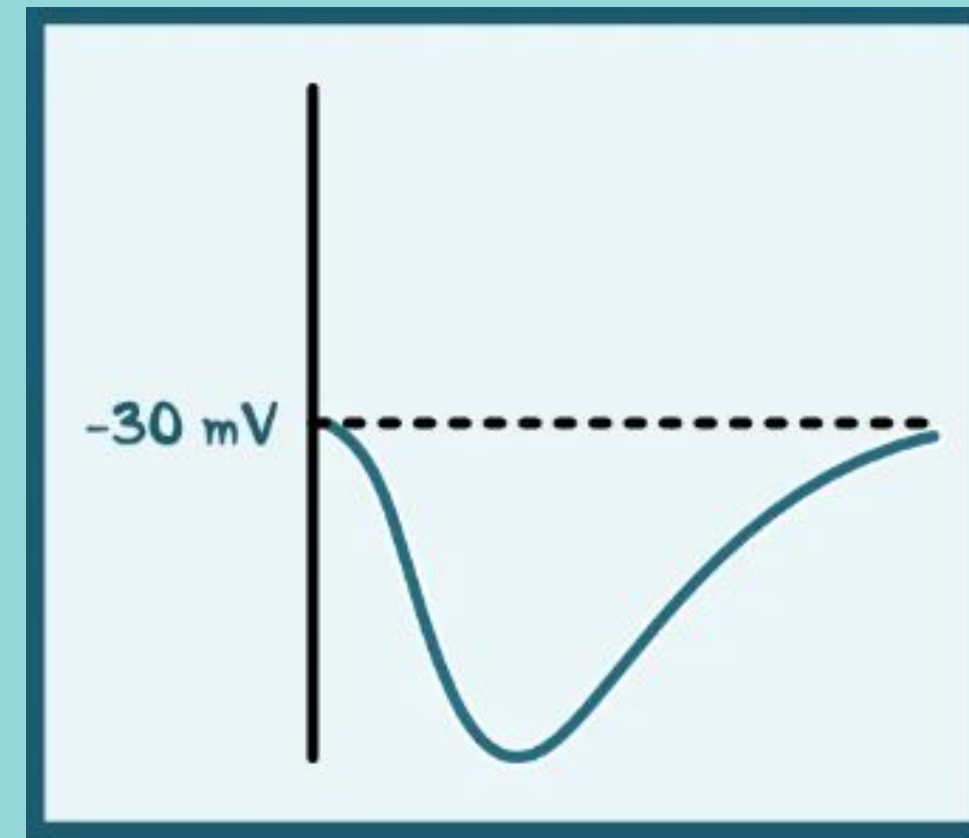
## EXCITATORY

More likely to fire



## INHIBITORY

Less likely to fire





# NEUROTRANSMITTERS

## ACETYLCHOLINE

Skeletal and heart muscles,  
alertness, interneuron communication

## DOPAMINE

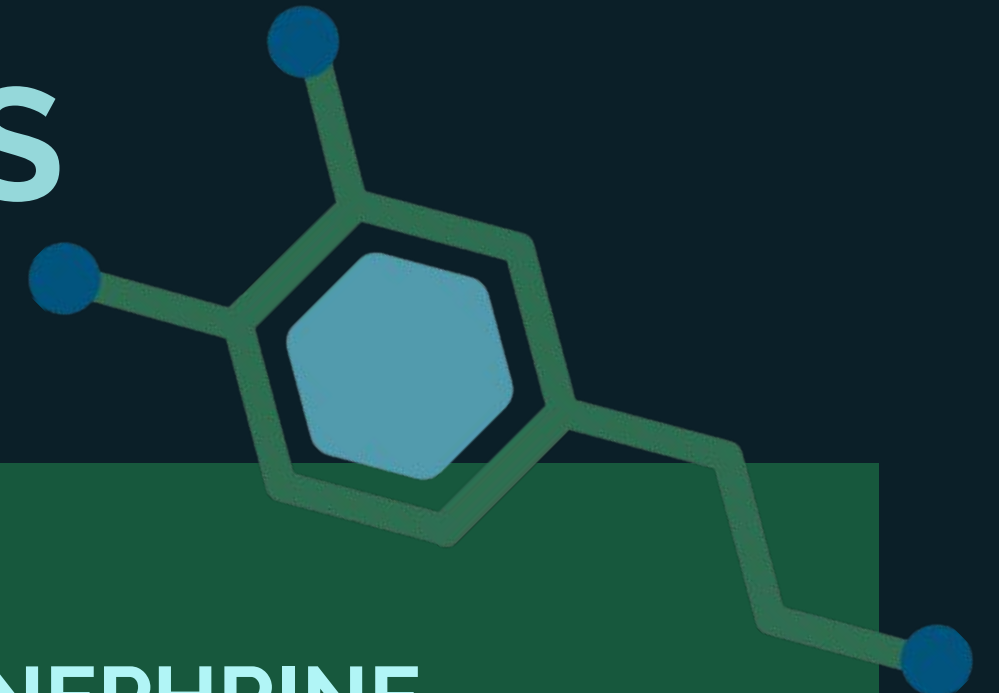
Movement, learning

## NOREPINEPHRINE

Fight or flight; attention, and memory

## SEROTONIN

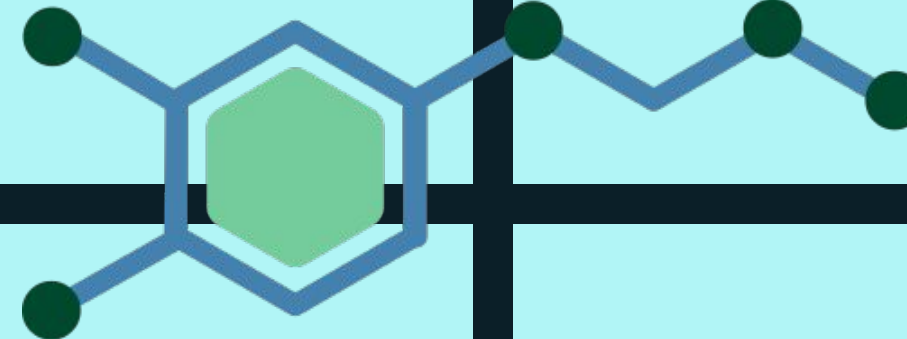
Moods and emotional states; regulation of  
sleep-wake cycle



# NEUROTRANSMITTERS

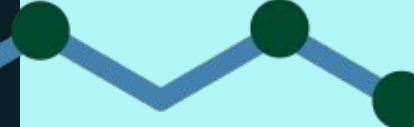
## ENDORPHINS

Modulates the experience of pain or pleasure



## SUBSTANCE P

Modulation of pain

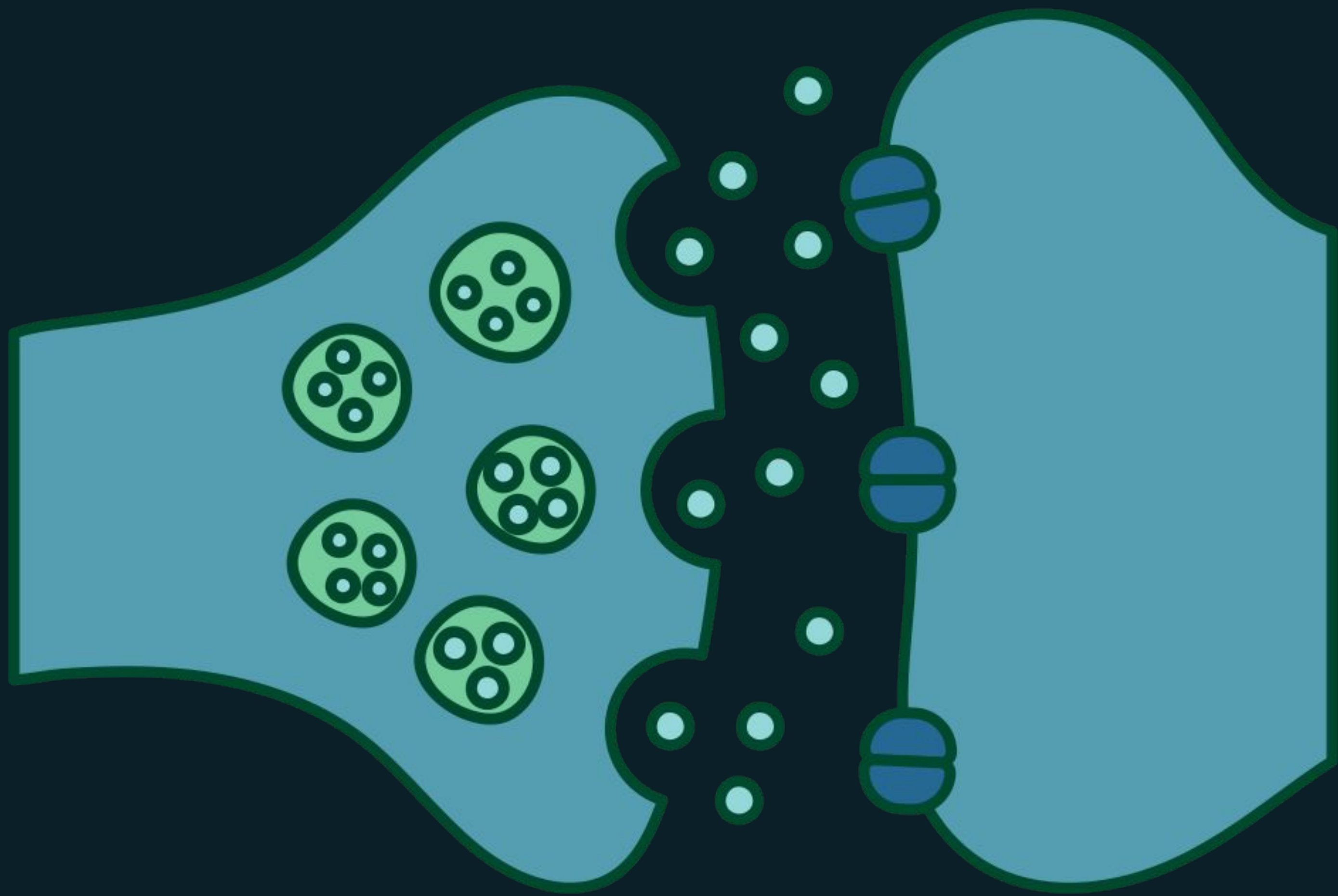


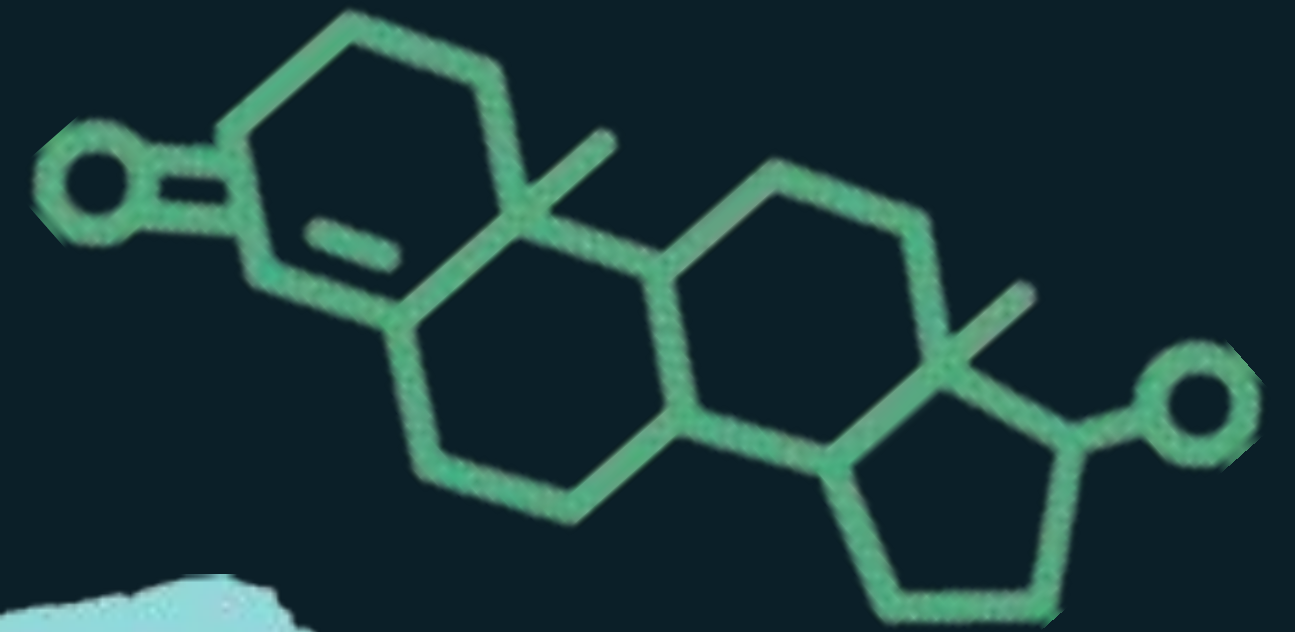
## GLUTAMATE

Learning and memory, sensory and motor functions

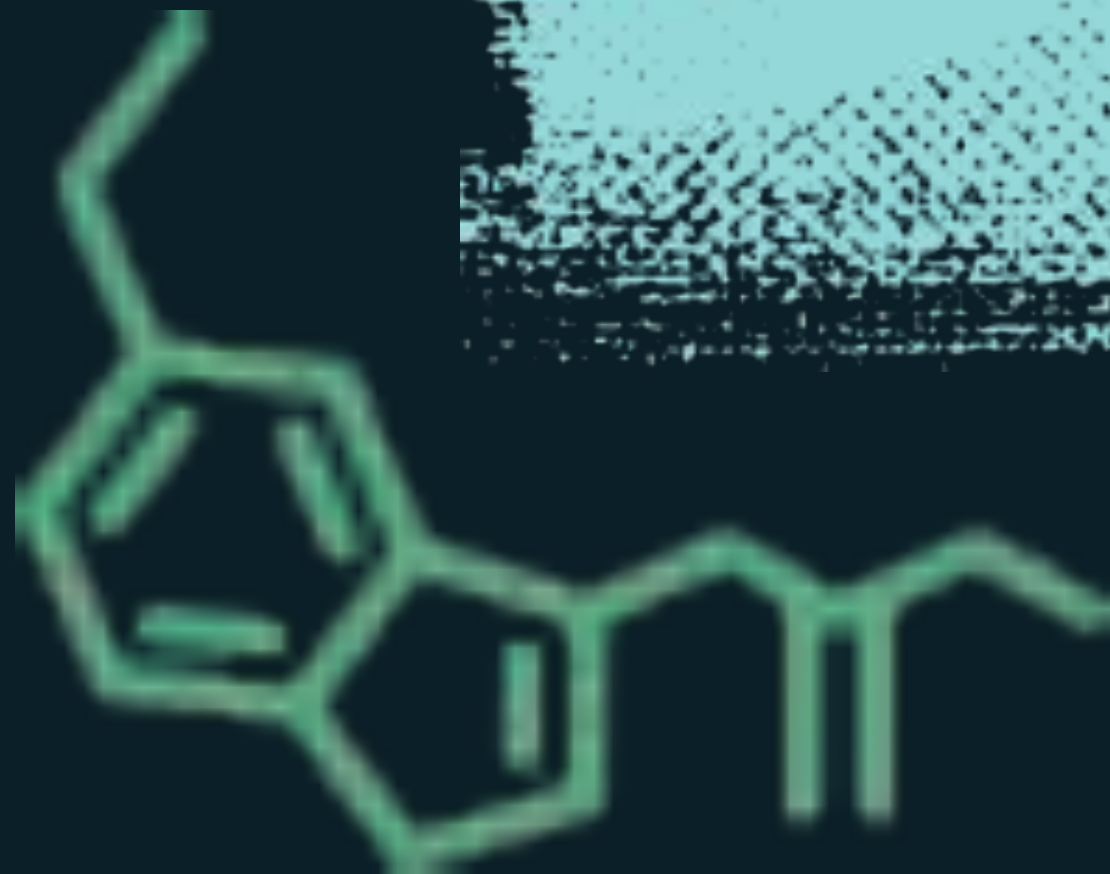
## GABA

Most abundant inhibitory neurotransmitter;  
regulates daily  
sleep-wake cycles





# Hormones



# NEUROTRANSMITTERS VS. HORMONES

## NEUROTRANSMITTERS

Internal

Nervous system

Quick-acting

## HORMONES

Internal

Endocrine system

Long-lasting

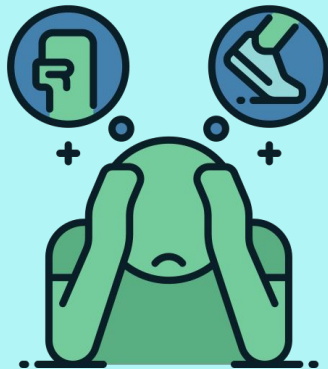
**Work similarly to  
neurotransmitters**



# HORMONES

## ADRENALINE

Fight or flight



## LEPTIN

Hunger (suppressant)



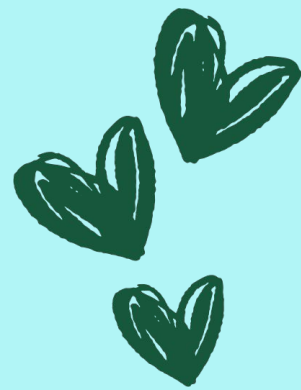
## GHRELIN

Hunger (stimulation)



## MELATONIN

Sleep



## OXYTOCIN

Labor, lactation, love