

# Serotonin

April 12, 2020

## Why in news?

Serotonin has been found to be helpful in stimulating brain activity.

## What is Serotonin?

- Serotonin is a chemical that transmits information from one part of the brain to the other and is known to play an important role in various functions from sleep to social behaviour.
- The study conducted by scientists at the Tata Institute in Mumbai showed that the neurotransmitter increases the number of mitochondria in brain cells.
- This Mitochondria produce cellular energy and play a part in the survival of stressed brain cells.
- Furthermore, serotonin increases mitochondrial energy production.
- Up until now, this role of serotonin was not known to regulate neuronal energy.
- Serotonin is important in reducing toxic oxygen reactivity in neurons, boosting antioxidant enzymes and buffering neurons from harmful cell stress effects.
- The study revealed an unparalleled role of serotonin in neuronal energy production, directly affecting the treatment of stress by neurons.
- It also has identified new treatment objectives for neurodegenerative and psychiatric disorders.
- The mechanism by which serotonin performs its energy boosting function has also been identified by researchers.