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**News:** Parkinson's disease management

- Recently, the Scientists at the Institute of Advanced Study in Science and Technology (IASST), an autonomous institute of the Department of Science and Technology have developed an affordable, portable smartphone-based fluorescence turn-on sensor system to enhance Parkinson's disease management by accurately monitoring L-dopa levels.

## **Parkinson's disease**

- Parkinson's disease is a **progressive neurodegenerative disorder that impairs movement and can lead to immobility and dementia over time.**
- The **disease usually occurs in older people, but younger people can also be affected. Men are affected more** often than women.
- The **prevalence of PD has doubled in the past 25 years. India shares around 10% of the global burden** of Parkinson's disease.
- **Causes:** The **exact cause of Parkinson's disease is not fully known yet, but it is believed to involve a combination of genetic and environmental factors.**
- It is **primarily characterized by the loss of dopamine-producing neurons in the brain, leading to motor and non-motor symptoms.**

- **Symptoms:** Motor symptoms include slow movement, tremors, rigidity, and walking difficulties.
- Non-motor symptoms include cognitive issues, mental health disorders, sleep disturbances, pain, and sensory problems.
- **Treatment:** There is no cure for Parkinson disease, but therapies including medicines, surgery and rehabilitation can reduce symptoms.
- Levodopa/carbidopa, a combination medicine that increases the amount of dopamine in the brain, is the most common medication.
- **World Parkinson's Day:** Every year, 11<sup>th</sup> April is observed as World Parkinson's Day.
- The day aims to amplify awareness and understanding about Parkinson's disease internationally.