



Daily current affairs

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Parkinson's disease

- Parkinson's disease is a chronic, degenerative neurological disorder that affects the body's motor system, often causing shaking and other difficulties in movement.
- Japanese scientists announced on Monday the first human trial to treat Parkinson's disease by injecting stem cells into brain, building on an earlier trial on primates. The research team at Kyoto University plans to inject five million induced Pluripotent Stem (iPS) cells, which have the potential to develop into any cell in the body, into a patient's brain, said the university. The iPS cells from healthy donors will be developed into dopamine-producing brain cells, which are no longer present in people with Parkinson's disease.
- Worldwide, about 10 million people have the illness, according to the Parkinson's Disease Foundation.

The clinical trials come after the researchers successfully used iPS cells to restore functioning brain cells in monkeys last year. They announced last year that primates with Parkinson's symptoms regained significant mobility after iPS cells were inserted into their brains.

- iPS cells are created by stimulating mature, already specialised, cells back into a juvenile state — basically cloning without the need for an embryo. These can be derived from the patient, making them less likely to be rejected, while also sidestepping ethical qualms about taking cells from embryos.
- The cells can be transformed into a range of different types of cells, and their use is a key sector of medical research. Currently available therapies "improve symptoms without slowing or halting the disease progression," the foundation says.
- In 2014, Riken, a Japanese government-backed research institution, carried out the world's first surgery to implant iPS cells to treat a patient with age-related macular degeneration (AMD), a common medical condition that can lead to blindness in older people.

Pink bollworm

- Pink bollworm is an insect which chews through the cotton lint to feed on the seeds. Since cotton is used for both fibre and seed oil, the damage is two-fold.

Other pests that infect cotton:

- Cotton is susceptible to a wide range of insect pests. Among the most destructive are the cotton bollworm, plant bugs, stink bugs, aphids, thrips and spider mites.
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DigiYatra

- DigiYatra is an industry-led initiative coordinated by the Ministry of Civil Aviation in line with Digital India programme.
 - It aims to transform the flying experience for passengers and position Indian Aviation amongst the most innovative aviation networks in the world.
 - The facility will use digital technology to enhance air passenger experience all the way from ticket booking to airport entry check, security check and aircraft boarding.
 - Passenger can enroll to this through AirSewa app for hassle free entry at airport through E-Gates. The ID verification will be done by the BCAS-approved Government ID. At the entry gate a single token for the passenger will be created.
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