Prelim Bits 02-04-2022 | Daily UPSC Current Affairs

M2e

- The influenza A virus was isolated for the first time in 1931, and the first attempts to develop a vaccine against the virus began soon afterwards.
- These viruses cause seasonal epidemics and also pandemics at random intervals.
- Vaccination is the most effective way of preventing the spread of influenza infection.
- But, the seasonal influenza strains mutate rapidly and new strains of the virus proliferate. This makes it very difficult to make a vaccine that can consistently generate a sufficient degree of immunity.
- However, the **M2e peptide** of influenza A virus is a conserved region section, meaning it doesn't undergo too many mutations across the several kinds of influenza A strains.
- Therefore, to design a **universal flu vaccine** the M2e peptide can be targeted and then the immune system can be primed to generate antibodies.
- But, it has a limited ability to trigger a strong and long-lasting immune response and this has represented a major roadblock in its clinical development.
- **Vaccine Platform** - Recently researchers have reported a novel vaccine platform to deliver M2e to immune cells.
- By deploying this platform, a single shot vaccine containing M2e was able to trigger long-lasting immune responses that could protect effectively against multiple strains of the flu.
- This vaccine approach has the potential to
    1. Minimise the amount of M2e vaccine **antigen** and the need for strong **adjuvants**,
    2. Reducing potential side-effects, particularly in more vulnerable populations.

Antigen is a substance that triggers the body's immune response against that itself.

Adjuvant is a substance which enhances the body's immune response to an antigen.

Reference

1. https://www.thehindu.com/sci-tech/science/science-for-all-what-is-m2e/article65274076.ece
2. https://jbiomedsci.biomedcentral.com/articles/10.1186/s12929-019-0572-3

Digitisation of J form

The Punjab government decided to provide digital J-Forms to the farmers across the state from April 1, 2022. This move will benefit the farmers who will be looking to sell their crop (wheat) at MSP in mandis.

- **'J form'** is the sale receipt of a farmer's agricultural produce in mandis (grain market).
- These forms were earlier issued manually by arthiyas (commission agents) because in Punjab, a majority of farmers sell their crops through such agents only.
- Also, this form is an income proof for a farmer who sells his crop.

- Before digitisation of the J form, several arhtiyas had the habit of keeping these forms with themselves, instead of providing it to the farmers, which was their right.
- Hence, many farmers ended up having no record of their income after selling their crops.
- But by getting digitised J form, farmers will now have a clear record of the crop sold and income received in lieu of that.
- **Punjab Mandi Board** will send these forms directly to the farmer's WhatsApp number immediately after a sale is confirmed on the system by the arthiyas and buyers.
- JForms in DigiLocker are legally at par with original physical documents in line with Rule 9A of the Information Technology (Preservation & Retention of Information by Intermediaries providing Digital Locker facilities) Rules, 2016.
- **Benefits** - The 'J form' can be used by the farmers for raising finance from financial institutions, IT waivers, subsidy claims, and farmer's insurance.
- It can also help farmers get admission for their wards in educational institutes abroad.
- Apart from this, this move will stop the theft of grains by some arhtiyas.
- The government too will benefit because some landowners (not involved in farming) show their income under farming to evade Income Tax payments.

Reference

1. https://indianexpress.com/article/explained/explained-with-digitised-j-form-a-big-push-to-transparency-empowering-farmers-7848801/
2. https://timesofindia.indiatimes.com/city/chandigarh/punjab-to-provide-digital-j-forms-to-9l-farmers-mann/articleshow/9057977cms
3. https://www.tribuneindia.com/news/punjab/mann-government-takes-another-path-breaking-initiative-to-provide-digital-j-forms-to-farmers-across-state-from-april-1-382429

Animal Welfare Board of India

- The Animal Welfare Board of India (AWBI) is a statutory advisory body on Animal Welfare Laws and promotes animal welfare in the country.
- It was set up in 1962 under Section IV of the **Prevention of Cruelty to Animals Act, 1960**.
- Late Smt. **Rukmini Devi Arundale** pioneered the setting up of the Board, with its Headquaters at Chennai.
- The Board consists of 28 Members. The term of office of Members is for a period of 3 years.
- The jurisdiction of AWBI is throughout the Country.
- The AWBI recognizes the Animal Welfare Organizations (AWOs) including Gaushalas as per the request made by those organizations.
- To know more about Animal Welfare Board of India, click here.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1812375
2. http://awbi.org/final/about/1

National Agricultural Research System

- India has one of the world's largest Agricultural Research System viz., National Agricultural Research System (NARS) including ICAR institutes and State Agricultural Universities (SAUs).
- NARS is a very robust system and continuously strengthening its Agricultural Research Activities for the benefit of Indian farming community for producing various crops.
- It is led by the Indian Council of Agricultural Research (ICAR).

- nars aims at the assessment of location-specific technology modules in agriculture and allied enterprises, through technology assessment, refinement, and demonstrations.
- NARS has a research network of 102 ICAR Research Institutes, 11 Agricultural Technology Application Research Institutes (ATARIs) and 73 Agricultural Universities spread across the country.
- It has developed 1956 high yielding varieties/hybrids of 80 field crops since 2014 which include 173 less water requiring varieties/hybrids of cereals, oilseeds, pulses, fiber crops, forages and sugarcane.
- It has contributed immensely to make India self-sufficient in food production and serves the agricultural technology and information needs of the country.
- Krishi Vigyan Kendras are an integral part of the NARS.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1812429
2. https://pib.gov.in/PressReleseDetail.aspx?PRID=1739601
3. https://agritech.tnau.ac.in/pdf/2014/National%20Agricultural%20Research%20System%20An%20Evaluation.pdf

‘Battle of Pollilur’ - The Painting

Titled ‘The Battle of Pollilur’, this is another work from the treasury of Tipu Sultan that was recently.

- Known to be a patron of art, Tipu Sultan commissioned numerous significant paintings.
- Titled ‘The Battle of Pollilur’, the work is nearly 32-foot long monumental painting.
- It depicts the **victory of the Mysore army** led by Haidar Ali, the ruler of Mysore, and his son Tipu, against the British East India Company forces in the **Battle of Pollilur** or the Battle of Perambakam (**1780**).
- The work was commissioned by Tipu Sultan (the last ruler of Mysore), as part of a large mural for the newly built Daria Daulat Bagh in Seringapatam in 1784.
- Another memorabilia of Tipu is the “**Magic Box**”.

Reference

1. https://indianexpress.com/article/explained/tipu-sultan-the-battle-of-pollilur-sotheby-auction-7843986/
2. https://www.bbc.com/news/world-asia-india-60911182

SHANKAR IAS PARLIAMENT
Information is Empowering