Prelim Bits 09-09-2021 | UPSC Daily Current Affairs

Fragile X Syndrome (FXS)

- It is a genetic disorder that causes a range of developmental problems including learning disabilities and cognitive impairment.
- It is the leading inherited cause of autism in 4% of the global population.
- It is caused by changes in FMR1 gene which make an important protein (FMRP) that is required for brain development.
- It is caused by the mutation named FRAXA.
- **Mutation** - A mother who is a carrier has a 50% chance of passing the mutated gene to her children, who will either be carriers or have FXS.
- Men who are carriers do not pass the pre-mutation to their sons, but only daughters, who become carriers.
- **Effect** - Males are more severely affected by this disorder than females.
- Studies suggest a high effect of consanguineous parenting on FXS prevalence. (Consanguineous is a term relating to or denoting people descended from the same ancestor.)
- **Detection** - The simplest tool for timely detection is a DNA test. This testing could be made mandatory for every child diagnosed with autism.
- **Symptoms** - Learning difficulty, speech delay, aggressive behaviour, hyperactivity, attention deficit, fear of the unfamiliar, sensory processing disorders and problems in motor skills.
- It cannot be cured, but early therapy can improve a person's quality of life.

FXS in India

- In India, FXS is largely undetected because of,
    1. Lack of adequate, affordable screening and diagnostic facilities,
    2. Stigma attached to mental health,
    3. Absence of surveys in community settings, and
    4. Bare minimum hospital data based on clinical experience.
- Without naming FXS, National Policy for Rare Diseases 2021 advises prenatal tests for lesser-known single-gene and other genetic disorders directly.
- To know more about the National Policy for Rare Diseases, click here and here.

Lung Cancer in Non-smokers

A recent study has analysed the genome of lung cancer in people with no history of smoking.

- It has found that a majority of the tumour genomes of never smokers bore mutational signatures related with **damage from endogenous processes** in the body**.** Example: Faulty DNA repair or oxidative stress.
- [Endogenous processes are natural processes happening in the body.]
- It found 3 molecular subtypes of lung cancer in the never smokers.
- **Situation** - Lung cancer is the leading cause of cancer-related deaths. Every year, more than 2 million people around the world are diagnosed.
- Most people who develop lung cancer have a history of tobacco smoking, but 10% to 20% of

people who develop lung cancer have never smoked.
- Lung cancer in never smokers occurs more frequently in women and at an earlier age than lung cancer in smokers.
- These new found insights may guide the development of more precise clinical treatments for lung cancer in never smokers.

Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)

PMGDISHA drive has been launched by the Ministry of Electronics & Information Technology (MietY) under the PMGDISHA scheme.

- Launched in 2017, the PMGDISHA scheme is the Government's flagship **Digital Literacy scheme for rural areas**.
- It envisages to make 6 crore persons in rural areas, across States/UTs, digitally literate.
- This will reach to around 40% of rural households by covering one member from every household where there is no digitally literate person.
- **Entry criteria** - Beneficiary should be Digitally Illiterate, who is only from rural areas of the country.
- All such households where none of the family member is digitally literate will be considered as eligible household under the Scheme.
- Only one person per eligible household would be considered for training
- Age Group - 14 to 60 years
- **Priority would be given to**
    - Non-smartphone users, Antyodaya households, college drop-outs, Participants of the adult literacy mission.
    - Digitally illiterate school students from class 9th to 12th, provided facility of Computer/ICT Training is not available in their schools.
- **Preference** would be given to SC, ST, BPL, women, differently-abled persons and minorities.
- Identification of beneficiaries would be carried out by CSC-SPV in collaboration with Gram Panchayats, District e-Governance Society (DeGS), and Block Development Officers.
- **Implementation** of the Scheme would be carried out under the supervision of MietY in active collaboration with States/UTs through their designated State Implementing Agencies, DeGS, etc.
- **Training** will be given in the nearest Training Centre or CSCs for 20 hours which has to be completed in a minimum of 10 days and maximum of 30 days.

Supreme Court's Stance on Presumption of Innocence

The Supreme Court has now ruled that there shall be no presumption of innocence once a person is convicted by a learned trial court.

Until now, **Innocent until proven guilty beyond reasonable doubt** is the general legal principle adopted by courts in India.

- The SC has also asked the High Courts to be 'very slow in granting bail to the accused pending appeal who are convicted' of the serious offences like murder.
- **Basic elements** - The court said that every judgment should contain 4 basic elements,
    1. Statement of material (relevant) facts,
    2. Legal issues or questions,

3. Deliberation to reach a decision and
4. Ratio or conclusive decision.

- A judgment should be coherent, systematic and logically organised. It should enable the reader to trace the fact to a logical conclusion on the basis of legal principles.

UAE's Green Visa

The United Arab Emirates has announced a new class of visas called "green visa" intended to ease the restrictions faced by foreigners in pursuing employment opportunities in the country.

- The green visa will allow foreigners to work in the UAE without being sponsored by an employer.
- This will be a marked change from the norm that requires a prospective worker to be sponsored via an employer, who, in turn, applies for a work permit from the Ministry of Human Resources and Emiratisation.
- The green visa will enable visa holders to sponsor their parents. It will increase the cap on the age of children who can be sponsored by the holder from 18 to 25.
- It will allow the holder to stay in the country up to 3 months to look for a new job if they are fired from older one. Previously, it was only 30 days.
- This visa targets "highly skilled individuals, investors, business people, entrepreneurs, as well exceptional students and postgraduates".

Source: PIB, The Hindu, The Indian Express

SHANKAR IAS PARLIAMENT
Information is Empowering