



dbGENVOC: Database of Genomic Variants of Oral Cancer

Why in News

Recently, the **National Institute of Biomedical Genomics (NIBMG)**, funded by the **Department of Biotechnology**, has **created the world's first database of genomic variations in oral cancer** (dbGENVOC).

Key Points

▪ About dbGENVOC:

- dbGENVOC, a comprehensive, flexible database framework, developed with an aim to **allow potential users to access, query, browse and download** clinically relevant somatic and germline variation data from Indian oral cancer patients.
 - **Somatic or acquired genomic variants** are the most common cause of cancer, occurring from **damage to genes in an individual cell** during a person's life.
 - A germline variant occurs in gametes and is **passed directly from a parent to a child** at the time of conception. Cancers caused by germline **pathogenic** variants are called inherited or hereditary.
- It will be updated annually with variation data from new oral cancer patients from different regions of India and southeast Asia.

▪ Cancer Burden in India:

- According to the World Cancer Report 2020, India had an **estimated 1.16 million new cancer cases in 2018**.
- 1 in 10 Indians **will develop** cancer during their lifetime and **1 in 15 will die** of the disease.
- The **six most common cancer types** in India are breast cancer, oral cancer, cervical cancer, lung cancer, stomach cancer, and colorectal cancer.
 - **Oral cancer is the most prevalent form of cancer among men in India**, largely fuelled **by tobacco-chewing**.

▪ Other Related Initiatives:

- **National Cancer Grid (NCG)** is a network of major cancer centers, research institutes, patient groups and charitable institutions across India with the mandate of establishing uniform standards of patient care for prevention, diagnosis, and treatment of cancer, providing specialized training and education in oncology (study of cancer) and facilitating collaborative basic, translational and clinical research in cancer. It was formed in August 2012.
- **National Genomic Grid (NGG):** NGG will collect samples from cancer patients, through a network of pan-India collection centres by bringing all cancer treatment institutions on board.
- **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)** is being implemented under **National Health Mission (NHM)** for up-to the district level activities.

Source: PIB

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