IndiGen Genome project

Part of: GS Prelims and GS-III- S&T

Details of the *IndiGen Genome project, conducted by CSIR*, were recently announced.

The initiative was *implemented by the CSIR-Institute of Genomics and Integrative Biology (IGIB), Delhi and CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad.*

**Significance, outcomes and benefits of the project:**

The outcomes of the IndiGen will have applications in a number of areas including *predictive and preventive medicine with faster and efficient diagnosis of rare genetic diseases.*

The data will be *important for building the knowhow, baseline data and indigenous capacity in the emerging area of Precision Medicine.*

**About Genomics for Public Health in India (IndiGen) programme:**

IndiGen programme aims *to undertake whole genome sequencing of thousands of individuals representing diverse ethnic groups from India.*

The *objective* is to enable genetic epidemiology and develop public health technologies applications using population genome data.

**Need for genome sequencing:**

1. Ever since the human genome was first sequenced in 2003, it opened a fresh perspective on the *link between disease and the unique genetic make-up of each individual.*
2. Nearly 10,000 diseases — including cystic fibrosis, thalassemia — are known to be the result of a single gene malfunctioning.
3. While genes may render some insensitive to certain drugs, genome sequencing has shown that cancer too can be understood from the viewpoint of genetics, rather than being seen as a disease of certain organs.

👍 Jai Hind Jai Bharat