



Phenome India National Biobank

Source: PIB

The **National Biobank**, newly inaugurated at **CSIR-Institute of Genomics and Integrative Biology (IGIB)**, marks a key step in creating **India's longitudinal health database**, paving the way for **data-driven healthcare and personalized medicine**.

- A **longitudinal health study** tracks individuals over time to understand **disease trends, treatment outcomes**, and support **population-specific health policies**.

National Biobank:

- **About:** A **Biobank** is a repository that collects, stores, and manages **biological samples** (such as **blood, tissues, and DNA**) and **health-related data** for scientific research.
- **Objective:** Launched under the **Phenome India Project**, its aim is to build a **comprehensive repository** reflecting India's diverse population.
 - To enable **personalized medicine** based on individual **genetic and lifestyle profiles**, support research on **chronic and rare diseases** relevant to the Indian context.
 - Facilitate **early diagnosis** along with more effective, **targeted therapies**.
- **Scope:** Biobank will gather **genomic, lifestyle, and clinical data** from **10,000 diverse Indian participants** across regions, age groups, and socio-economic backgrounds.
- **Significance:** Strengthens India's fight against diseases like **diabetes, cancer, cardiovascular, and rare genetic disorders**.
 - **Inspired by the UK Biobank**, it is tailored to **India's diverse population** for **targeted, population-specific healthcare**.

Phenome India Project:

- The **Phenome India Project**, or **Phenome India-CSIR Health Cohort Knowledgebase (PI-CHeCK)**, is a **pan-India, long-term study** launched by **CSIR** in **2023** to **track individual health over time**.
- It aims to uncover **disease patterns, gene-environment interactions**, and develop **India-specific risk models** for **cardio-metabolic diseases**.

Phenome:

- **Phenome** is the full set of **observable traits in an individual**, shaped by the **interaction of their genes and the environment**.
- It includes **physical features, behaviors, and disease risks**, essentially, the visible outcome of genetic instructions.

Read More: [Phenome India-CSIR Health Cohort Knowledgebase \(PI-CHeCK\)](#), [Precision Medicine and Biobanks](#)

