

BHARAT Initiative

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BHARAT Initiative Latest News

The Indian Institute of Science (IISc), Bengaluru, launched a large-scale study called BHARAT.

About BHARAT Initiative

- BHARAT is a short for '**Biomarkers of Healthy Aging, Resilience, Adversity, and Transitions**', as part of its Longevity India Program.
- The study aims to map the **physiological, molecular, and environmental indicators** that drive ageing in **the Indian population**.
- **Under this initiative researchers are** building India's first comprehensive aging database through:
 - Multiparametric analysis
 - Advanced clinical assessment
 - Lifestyle and environmental factors
 - Comprehensive biomarker discovery

- It is identifying biomarkers for healthy ageing and also **building the Bharat Baseline** — a reliable reference for what is normal in the Indian population.
- Its database will include **genomic biomarkers** (like mutations linked to disease susceptibility), **proteomic and metabolic indicators** (reflecting biological pathways and metabolic health), and environmental and lifestyle factors.
- It will **challenge the western values** for cholesterol, vitamin D, or B12 may label many Indians as deficient.

What are Biomarkers?

- Biomarkers, short for '**Biological Markers**' are a **physical, chemical, or biological characteristic** that is present in the human body, and measurable too.
- The WHO defines a biomarker as “any measurement reflecting an interaction between a **biological system and a potential hazard**, which may be chemical, physical, or biological. The measured response may be functional and physiological, biochemical at the cellular level, or a molecular interaction”.
- They are **indispensable in diagnosing disease**, prescribing the right medication, right dosage, and even while designing new drugs.
- Biomarkers **include biomolecules** like carbohydrates, proteins, lipids, genes, DNA, RNA, platelets, enzymes, hormones, etc.

Source: **TH**

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