



Project Manav

A **human atlas initiative** named **Manav** has been launched by the **Department of Biotechnology (DBT)** and Persistent Systems, a biotechnology company.

- The aim is to create a **unified database of molecular network** of all the tissues in the human body and to derive a holistic picture of working of the human body.
- In this **public-private venture**, DBT and Persistent Systems will invest Rs 13 crore and Rs 7 crore respectively.
- There is already a similar **Human Cell Atlas project** (launched in the year 2016), which is a collaborative effort between the **world-leading scientists**, to generate data pertaining to cellular and molecular activities of various cell types in the body in both its normal and disease state using techniques such as single cell genomics.
- The **Indian project**, on the other hand, depends on the knowledge already available in scientific literature to derive information on cellular network.

About the Project

- This mega project will collate and integrate molecular information on human tissues and organs that currently remain in research articles in an unstructured and disorganised form.
- The project would **utilise large biological community**, both students and scientists, for extracting and adding the information from scientific literature at the level of cells and organs.
- The database, that would get created, would eventually help researchers **identify gaps in current knowledge** and help in future projects in diagnostics and disease biology.
- Also, the information gathered in the project will help scientists to understand the differential molecular factors which vary between diseased states vis-a-vis a healthy state of an organ.
- The project will be executed by the **Indian Institute of Science Education and Research (IISER)** and the **National Center for Cell Sciences (NCCS)** based in Pune.
 - While the institutes will train students, the technology platform and data management will be provided by the private partner.
 - **IISER** is an autonomous institution established by the **Ministry of Human Resource Development**.
 - **NCCS** is an autonomous organisation aided by the Department of Biotechnology, **Ministry of Science and Technology**.
- This initiative will also help in creating a **trained population of biologists**. With the data curation and analysis skills imparted during this project, students will have better opportunities for

jobs in the life science sector.

- The data methodology and technical platform developed during this project can also be extrapolated to do other science projects on biodiversity, ecology, environment etc. which may be relevant nationally or globally.

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