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IIT-M launches first-of-its-kind cancer genome database to transform cancer research in India

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The Genome Atlas provides knowledge on the genetic basis of cancer progression and evolution



The Indian Institute of Technology Madras (IIT-M) in collaboration with Karkinos Healthcare, Mumbai, the Chennai Breast Clinic and Cancer Research and Relief Trust, Chennai, has announced the completion of the Indian breast cancer genome sequence generation and released the ‘Bharat Cancer Genome Atlas’ (BCGA).

The institute has made this database publicly accessible at bcga.iitm.ac.in to researchers and clinicians in India and abroad. The research was led by the Institute’s Centre of Excellence on Cancer Genomics and Molecular Therapeutics, which was funded under the Government of India’s ‘Institutions of Eminence’ initiative.

Elaborating on this initiative, Project Coordinator Prof. S. Mahalingam, Head, Centre of Excellence on Cancer Genomics and Molecular Therapeutics, IIT Madras, said, “This database will be an invaluable resource to identify cancer-specific biomarkers in India, which will enable early detection of breast cancers. Further, it will also be very useful to identify novel drug targets for developing better treatment strategies specific to the Indian population.”

This Genome Atlas also provides knowledge on the genetic basis of cancer progression and evolution and may help the biomedical research and healthcare system in India shift toward a vision of “personalised medicine” which may improve the standard of medical care by including an individual’s genetic and molecular information in the clinical decision-making process.

The analysis was performed under the aegis of National Center for Precision Medicine in Cancer, an initiative between IIT Madras and Karkinos Healthcare to accelerate interdisciplinary research and development of affordable cancer care solutions.