First-ever Cancer Tissue Biobank in IIT-Madras

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The Indian Institute of Technology-Madras (IIT-M) on Tuesday announced the setting up of a cancer tissue bio-bank, a first-of-its-kind community-based venture. At a press briefing, IIT-M director Bhaskar Ramamurthi said the tissue biobank was a collaborative effort between the Department of Science and Technology (DST), Government of India, and IIT-Madras.

The DST has awarded Rs 27.81 crore towards the establishment of the facility in IIT-Madras and the project will be spearheaded by Prof S Mahalingam, Department of Biotechnology.

The project is aimed at attracting voluntary contribution of cancer tissue by individual patients and treating doctors/institutions. Such indigenous research is mandatory for progress in the advancement of cancer therapeutics. The venture will help reflect on cancer incidence, diagnostics and treatment outcomes.

The director said that IIT-M initiated the biobanking process with the Cancer Research and Relief Trust (CRRT), Chennai, and aimed to collaborate with various institutions/organisations and encourage donation of cancer tissue by patients. “Measures will be put in place for appropriate collection, transport and storage of such tissue in the centralised tissue bank to be located within the premises of IIT-Madras.”

Research institutions/organisations with appropriate regulatory approval may have access to the stored tissue samples with an aim to identify suitable drug targets and biomarkers. “This is aimed at discovering ‘personalised treatment’ with less side effects, early detection and prevention of cancer,” Ramamurthi said.

Besides a complementary funding of Rs 3.9 crore, IIT-M will also provide 10,000 sq ft space exclusively for the biobank with storage and security facilities. It will have the infrastructure to accommodate 25,000 cancer tissue samples initially over a period of five years. Super-resolution imaging system, cell sorting facility and next generation sequencing facilities will also be housed in the biobank.

Upon standardising the system and process within the central facility at Chennai, the process will be duplicated at nodal stations in peripheral areas.