



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, तिरुवनन्तपुरम –
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**SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND
TECHNOLOGY**

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(An Institute of National Importance under DST ; Government of India)
(भारत सरकार के अधीन एक राष्ट्रीय महत्व का संस्थान)

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**India's first "Biobank" for Heart Failure research has started at Sree Chitra
Tirunal Institute for Medical Sciences and technology.**



Heart failure (HF) is emerging as a major health problem in India, with mortality rates higher than many common cancers. Therefore, there is a need for more attention and research in the field of heart failure. In this background the Indian Council of Medical Research (ICMR), New Delhi, had initiated the National Centre for Advanced Research and Excellence in Heart Failure, (CARE-HF) at The Sree Chitra Tirunal Institute for Medical Sciences and technology (SCTIMST), Thiruvanthapuram, and had granted a funding of 5 Crores. The Heart Failure Biobank is one of the major components of the project, which is the first in the country, With a fund allocation of 85 Lakhs to state-of-the-art storage facilities.

Prof. Balram Bhargava, Secretary DHR and DG, ICMR, virtually inaugurated the Heart Failure Biobank on 5th August 3pm. He emphasized that there are no heart failure biobanks in the country. This would be the first to collect blood, biopsies and clinical data to help guide us into future therapies and technologies, that would benefit the HF patients significantly. He also mentioned that the biobank will provide insights into heart diseases and heart failure among Indian children and adults which is very different from that seen in the West.

‘The heart failure biobank will be useful for the research and treatment of post-covid heart failure’, said Prof. Ashutosh Sharma, Secretary DST in his inaugural message. ‘The HF Biobank at SCTIMST will open a new era in research in HF in India, and will change the persona of diagnosis and treatment of Heart Failure

patients’, said Dr V. K. Saraswat, President of SCTIMST and Member-NITI Aayog.

The principal investigator of the project, and Prof. of cardiology at SCTIMST, Dr. Harikrishnan S informed that the storage facilities include -20, -80-degree mechanical freezers and a Liquid Nitrogen storage system which can store bio-samples at – 140 degrees perpetually for years. Currently there the facilities to store nearly 25000 bio samples.

The biospecimens include blood, serum, tissue samples obtained during open-heart surgery and peripheral blood mononuclear cells (PBMCs) and genomic DNA collected from heart failure patients. The Biobank activity is supervised by a Technical Advisory Committee with a member from ICMR.

Prof. Ajitkumar VK, Director SCTIMST explained that biobanks are an important resource containing collections of high-quality biological human samples that can be used to understand molecular pathways, and to improve the diagnosis, prognosis, and treatment of Heart Failure.

The bio-specimens are collected after informed consent from patients who are willing to donate specimens. The de-identified samples stored and catalogued will be linked to clinical data such as physiological measures, imaging data like ECG, Echocardiography MRI and follow-up data. Researchers and clinicians interested

in research related to HF can join collaborative research programs with HF program at SCTIMST. The research proposal has to follow all the ethical guidelines and should be approved by the TAC and Ethics Committee of SCTIMST.

HF Biobank at SCTIMST has already signed an MOU with InStem Bangalore for collaborative research in Hypertrophic Cardiomyopathy, a disease which runs in families with thickening of heart muscles.

