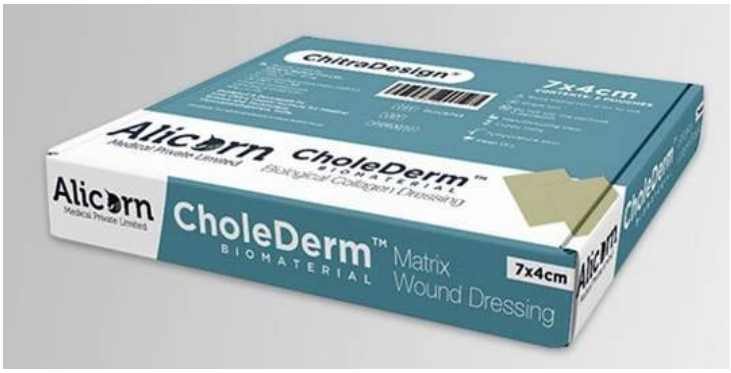
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CDSCO approves animal-derived tissue engineering scaffold for wound healing

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Membrane forms of the scaffold, identified as Cholederm, heals different types of skin wounds including burn and diabetic wounds



The first indigenously developed tissue engineering scaffold from mammalian organs, an animal-derived Class D Biomedical Device that can rapidly heal skin wounds at low-cost with minimum scarring, has received approval from the Indian Drugs Controller.

With this, the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), an autonomous institution of the Department of Science and Technology (DST), has become the first institution in the country to develop Class D medical devices that satisfy all statutory requirements of the Central Drugs Standard Control Organisation (CDSCO), Government of India.

The concept of using animal-derived materials as advanced wound care products is not new. However, indigenous technology was so far not available for fabricating quality products that satisfy the requirements of the Drugs Controller General. Therefore, such products were imported making them expensive.

Researchers of the Division of Experimental Pathology in the Biomedical Technology Wing of the institute developed an innovative technology for preparing tissue engineering scaffolds from mammalian organs. In 2017, the technology was transferred to Alicorn Medical, a startup in the technology incubation facility of the institute namely TIMed.

In a recent research paper accepted for publication in Comparative Medicine, the team showed that the scaffold has the ability to mitigate fibrotic scarring in rats suffering an experimental myocardial infarction.

It is expected that with the introduction of Cholederm to the Indian market, the treatment cost can be reduced from Rs 10,000 to Rs 2,000 making it more affordable to the common man. Moreover, the technology for recovering extracellular matrix from the gall bladder is not available to others and it gives a fair chance for competition in the international market.