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DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

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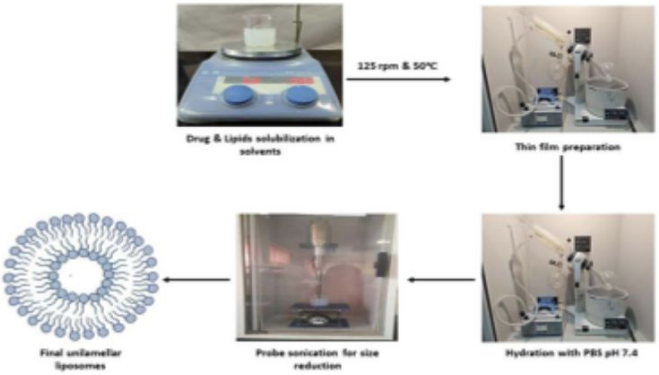
**PENDING**

# (IN202311064593) Liposomal formulations of decitabine for leukemia treatment and methods thereof




## NEED

Leukemia treatments often involve harsh side effects due to non-targeted drug delivery. Current therapies lack specificity, causing toxicity and limiting effectiveness. A more efficient, targeted approach could revolutionize treatment by minimizing adverse effects.

## TECHNOLOGY OVERVIEW

This patent presents a surface-modified liposome formulation designed for leukemia treatment. It encapsulates a nucleic acid synthesis inhibitor, such as decitabine, within liposomes, improving targeted drug delivery. The liposomes are optimized through a specific preparation process, offering better drug stability, controlled release, and reduced side effects.

## TECHNOLOGY KEY FEATURES

Surface-modified liposomes, optimized drug delivery, liposome size (100–200 nm), encapsulating decitabine, improved targeting, controlled release, enhanced therapeutic efficiency, reduced toxicity, formulation via thin-film hydration, cryoprotectant lyophilization.

Read more here

## MARKET ANALYSIS

Global market for liposomal drug delivery systems is growing at a CAGR of 10.2%, expected to reach $15.9 billion by 2033 (source: Allied Market Research, 2023). Indian pharmaceutical market for cancer therapeutics is expected to grow at 12.5% CAGR through 2030 (source: IMARC Group, 2024).

## Target Industries

- , Liposomal drug developers, oncology pharmaceutical manufacturers, biopharmaceutical companies specializing in nanomedicine, and drug formulation service providers.
- , Drug delivery system integrators, liposome formulation research platforms, specialized pharmaceutical companies focusing on targeted cancer therapies, clinical R&D labs.

## AT A GLANCE

- SDG 3 (Good Health and Well-being), SDG 9 (Industry, Innovation, and Infrastructure)

Technology is available for licensing/ co-development.

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