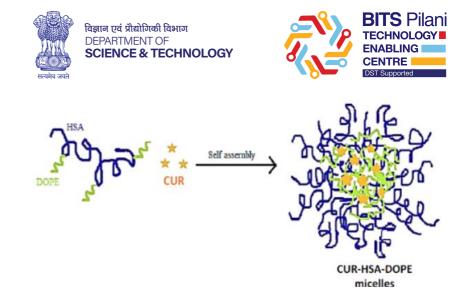


GRANTED (IN515964) Drug delivery system having HSA-dope conjugate micelle



NEED

Many lipophilic drugs, like curcumin, struggle with poor bioavailability and targeted delivery. This invention presents a micelle-based system using human serum albumin (HSA) and DOPE to improve drug delivery efficiency.

TECHNOLOGY OVERVIEW

This invention introduces a drug delivery system utilizing a human serum albumin (HSA) and 1,2-Dioleoyl-sn-glycero-3-phosphoethanolamine (DOPE) conjugate micelle for encapsulating lipophilic drugs like curcumin. The system improves bioavailability and stability, providing a better route for intravenous administration.

TECHNOLOGY KEY FEATURES

1) Micelle-based drug delivery system using HSA and DOPE conjugates. 2) Enhanced bioavailability of lipophilic drugs like curcumin. 3) Intravenous administration with a controlled particle size of 150-250 nm for efficient delivery.

MARKET ANALYSIS

The global drug delivery market is projected to grow at a CAGR of 6.3% from 2023 to 2033, driven by increased demand for advanced drug delivery systems in oncology and chronic diseases. (Source: Market Research Future, 2023)

Target Industries

1) Pharmaceutical companies specializing in novel drug formulations and delivery systems. 2) Biotech firms developing advanced drug carriers for targeted therapies. 3) Healthcare providers adopting innovative drug delivery methods, especially for cancer treatment.

AT A GLANCE

 SDG 3 (Good Health and Well-being), SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production)

Read more here

Technology is available for licensing/ co-development. Reach out to Prof. Deepak Chitkara, Coordinator, BITS Technology Enabling Centre, BITS Pilani Contact Details: tec.bits@pilani.bits-pilani.ac.in, 91 1596-255913

