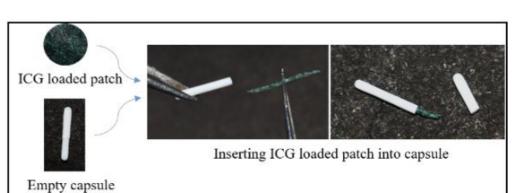




विज्ञान एवं प्रौद्योगिकी विभाग DEPARTMENT OF **SCIENCE & TECHNOLOGY**



GRANTED (IN467618) Drug delivery patch



NEED

Many drug delivery systems fail to provide controlled, unidirectional release, resulting in inconsistent therapeutic effects. What if a patch could ensure precise, one-way drug release directly to the site of action?

MARKET ANALYSIS

The global drug delivery market is projected to grow at a CAGR of 10.5% until 2033, driven by advancements in targeted and controlled release systems. In India, this market is expected to grow at 9%. (Source: Grand View Research)

TECHNOLOGY OVERVIEW

This drug delivery patch ensures unidirectional drug release using a substrate pre-filled with pharmaceutical formulation, and polymer layers that regulate drug release. The second polymer layer is impermeable to the formulation.

Target Industries

, Pharmaceutical manufacturers, controlled drug release system developers, healthcare providers focusing on localized and precise drug treatments, and research organizations specializing in drug delivery technology.

TECHNOLOGY KEY FEATURES

Unidirectional drug release; two-layer polymer system; hydrophobic and hydrophilic formulations; precise delivery of drugs like oxaliplatin and 5-fluorouracil; enhances bioavailability and therapeutic efficacy.

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

