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DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

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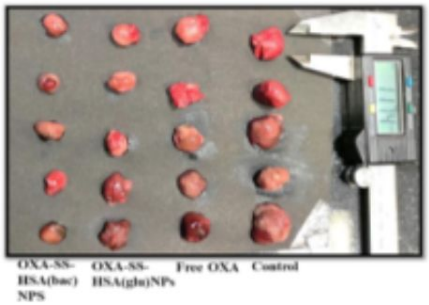
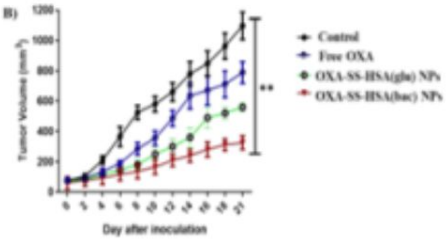
PENDING

(IN202111040695) Nanoconjugate of a platinum(IV) compound and human serum albumin





NEED

Cancer treatments often face issues with drug resistance and systemic toxicity. What if there was a way to deliver platinum-based drugs more efficiently and with fewer side effects?

MARKET ANALYSIS

The global market for cancer nanomedicines is projected to grow at a CAGR of 11.3% from 2023 to 2033, driven by demand for more effective, less toxic therapies. (Source: Grand View Research)

TECHNOLOGY OVERVIEW

This nanoconjugate combines platinum(IV) compounds with human serum albumin via a cleavable linker, improving the drug's delivery and minimizing side effects. It is designed for targeted therapy with enhanced therapeutic efficacy.

Target Industries

1) Pharmaceutical companies focusing on oncology treatments. 2) Biotech firms working on targeted drug delivery systems. 3) Healthcare providers aiming to improve cancer treatment outcomes with minimal toxicity.

TECHNOLOGY KEY FEATURES

1) Platinum(IV) compounds like oxaliplatin and cisplatin. 2) Linker cleavable via hydrolysis, enzymatic action, or pH changes. 3) Crosslinking with glutathione-sensitive agents for controlled release. 4) Reduced systemic toxicity in cancer treatments.

AT A GLANCE

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

Read more here

Technology is available for licensing/ co-development.

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