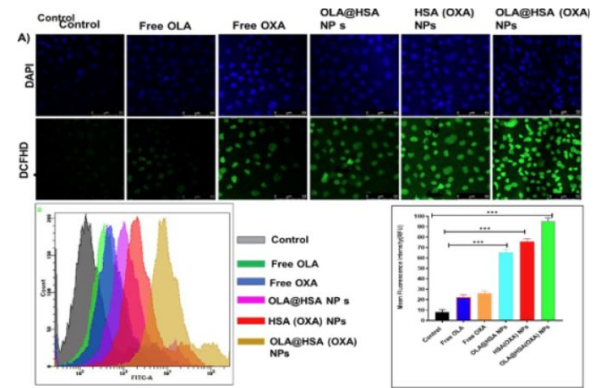




PENDING

(IN202311087907)

Chemotherapeutic composition comprising a conjugate of human serum albumin (HSA) with a Pt (IV) anticancer prodrug



NEED

Over 9.6 million cancer deaths occur globally each year, with chemotherapy failure rates nearing 70% due to drug resistance and poor tumor targeting. Inefficient delivery causes \$4.5B in lost treatment costs. Oncologists urgently need precision drug carriers to improve outcomes.

TECHNOLOGY OVERVIEW

This invention presents a chemotherapeutic composition where human serum albumin (HSA) links with a platinum (IV) anticancer prodrug in a 1:4 ratio. Enhanced drug delivery, tumor-specific targeting, and nanoparticle formulation promise to optimize chemotherapy while minimizing systemic toxicity, transforming conventional cancer treatment protocols.

TECHNOLOGY KEY FEATURES

HSA-based conjugation, 1:4 mol ratio drug loading, dual-action with PARP inhibitors, nanoparticle formulation, enhanced stability, reduced toxicity, tumor-specific accumulation, prolonged circulation time, effective against platinum-resistant cancers, scalable synthesis method.

[Read more here](#)

MARKET ANALYSIS

The global oncology drug delivery market grows at 19.6% CAGR to reach \$179 billion by 2033 (source: Precedence Research, 2024). Indian oncology therapeutics sector grows at 14.7% CAGR, driven by higher cancer burden and advanced therapies adoption (source: IMARC Group, 2024).

Target Industries

Oncology Drug Manufacturers, Nanomedicine Research Labs, Precision Oncology Centers. , Cancer drug developers, nanoformulation specialists, advanced clinical research organizations, biotech startups focusing on oncology innovations.

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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