

Licensing Opportunity

Novel, Highly Effective and Less Toxic Drug Delivery System

The Invention

This invention relates to a highly effective drug delivery system for treatment of patients suffering from breast cancer, gastric cancer, non-small cell lung cancer, prostate cancer, or head and neck cancer. The invention is specifically a vehicle for delivery of predominantly anti-cancer drugs either in encapsulated or conjugated pattern in nano-particle forms. The lipid based nano-particle -drug formulation is aggregated in supra molecular form to attain different structural assemblies which is useful in target specific drug delivery. The inventors have approached the problem of delivery, toxic nature and insufficient retention time of hydrophobic and hydrophilic cancer drugs using a lipid-based formulation.

Value proposition

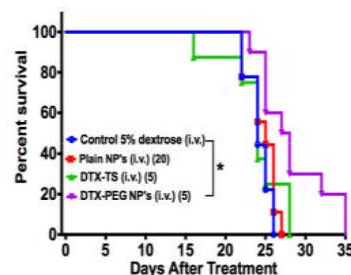
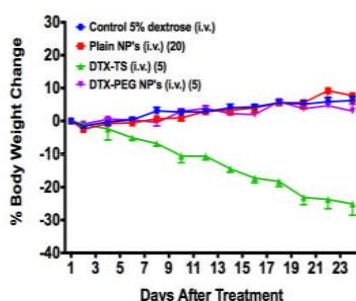
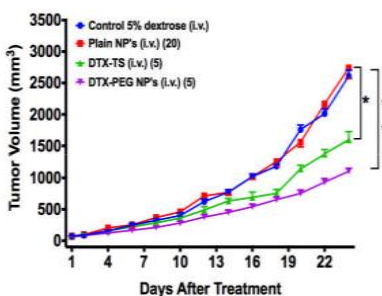
- Fourfold enhancement in Bioavailability
- Three times higher drug concentration at tumor site
- No toxicity due to low drug concentration in circulation
- No surfactant related toxicity
- Enhanced drug entrapment
- Simple and single step
- Less time (< 1h)
- No special equipment required for synthesis

Proof of Concept

- Established through Animal studies in Mice and Rhesus Monkey
- Antitumor activity in murine models-reduction in the tumor volume by >60% as compared to control (5% glucose)

Technology User

Cancer patients diagnosed with gastric cancer, breast cancer, non-small cell lung cancer, prostate cancer, or head and neck cancer



Stage of the Technology

Laboratory Scale validated

Developer of Technology

Regional Centre for Biotechnology(RCB) Faridabad

IP status

PCT and Indian patent applications filed

Potential Applications

Treatment of cancer, bacterial infection, fungal infection, diabetes and inflammatory diseases

Contact Us

Dr. Suchita Markan

Assistant General Manager

Biotech Consortium India Limited

Anuvrat Bhawan, 5th Floor, 210,

Deen Dayal Upadhyaya Marg,

New Delhi - 110002

Tel: +91-11-23219056 (D), 23219064-67,

Email: suchita@biotech.co.in or info.bcil@nic.in

Website: <http://www.bcil.nic.in>