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Hyaluronic acid derivative modified nano-structured lipid carrier for cancer targeting and therapy

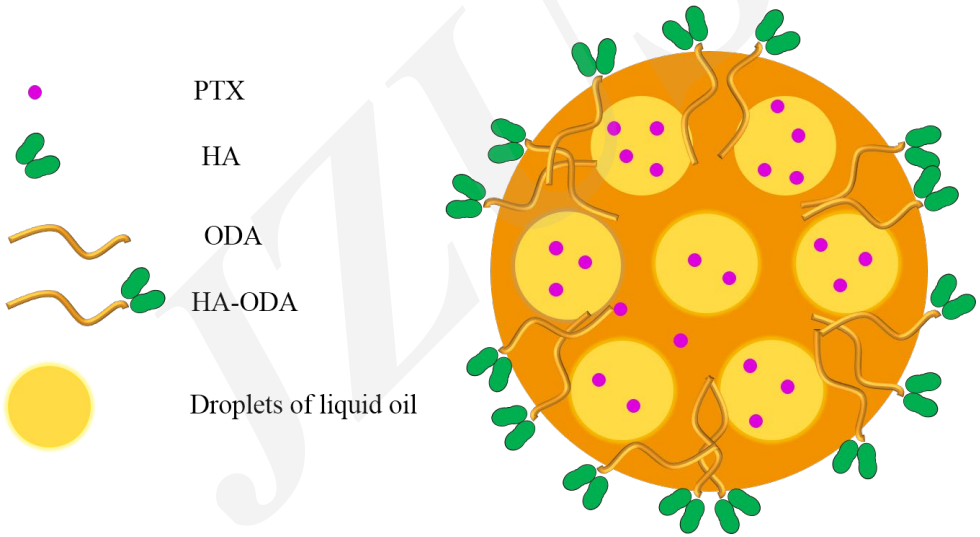
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Key words: Paclitaxel; Hyaluronic acid-octadecylamine; Nano-structured lipid carrier; Tumor targeting; In vivo distribution

Research Summary

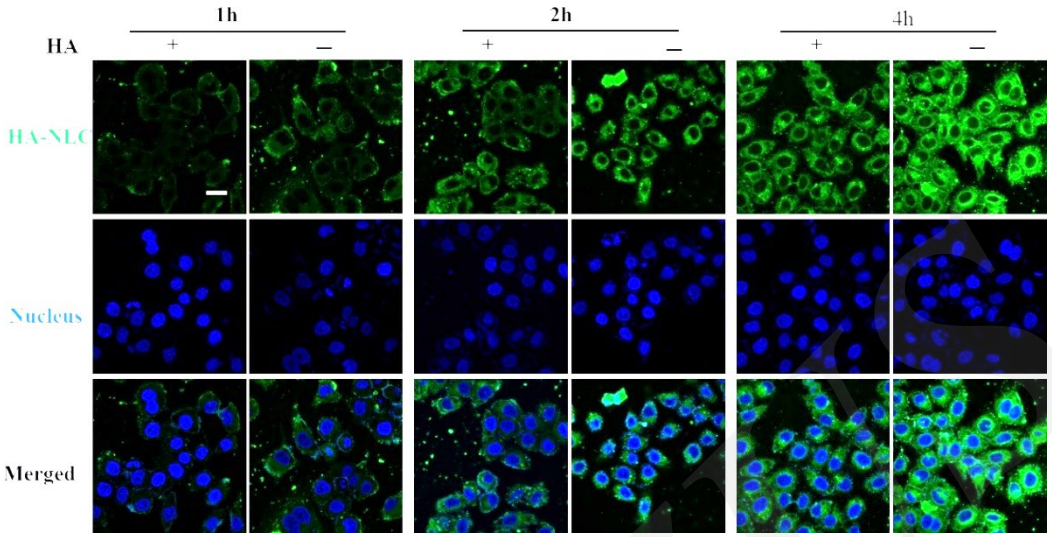
This research constructed a new drug delivery system (HA-NLC/PTX) by:

- **Synthesizing** the hyaluronic acid-octadecylamine (HA-ODA) conjugates by amidation reaction
- **Embedding** the hydrophobic chain of HA-ODA in the lipid core of NLC by aqueous solvent diffusion method



The HA-NLC improved the problem of poor solubility and high in vivo dosage of paclitaxel.

Research Summary



- The HA-NLCs could recognize CD44 and had strong internalization in CD44 highly expressed MCF-7 cells.

- HA decreased the NLCs distribution in the liver and enhance its distribution to CD44 highly expressed tumors.

