



UNIVERSITY of NORTH TEXAS HEALTH SCIENCE CENTER

**Technology Transfer & Commercialization**

## Process for Making HDL-based Drug Delivery Vehicle

### Learn more!

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### Technology Case

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### Our Inventors

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### Patent Status

US Application filed

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## Discovery

- Process for constructing HDL nanoparticles useful as drug delivery vehicles, particularly in combination with anti-cancer agents

## Features

- Improved method of manufacturing allows for the production of uniform, spherical particles with significantly higher drug loading potential over conventional preparations
- Preparation utilizes safe, natural components isolated from human blood serum
- Nanoshell components are natural ligands for certain receptors over-expressed by select cancer cell lines
- Proof of concept results show potential for increased efficiency in killing cancer cells over naked drug

## Benefits

- Reduced side effects from chemotherapeutic treatments
- Improved drug tolerance and thus, therapeutic efficiency
- Scalable process is suitable for industrial manufacturing

## Opportunities

- The safe and efficient delivery of hydrophobic anti-cancer drugs is a significant impediment to the effective treatment of several cancers. Delivery via HDL particles may enable a solution to this problem.
- To date, there are no known lipoprotein-based drug delivery formulations in the clinic.