

# Groundbreaking vaccine research unveiled at AAPS Conference

May 20 2014

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Innovative vaccine research will be unveiled at the American Association of Pharmaceutical Scientists' (AAPS) National Biotechnology Conference (NBC).

The meeting takes place Monday, May 19- Wednesday, May 21 at the Sheraton San Diego Hotel and Marina.

## Designing a Novel Freeze-Stable Tetanus Vaccine

According to the World Health Organization, over half of all vaccines worldwide are destroyed due to freeze-damage. A lot of research is currently being conducted about issues associated with the cold-chain and freeze-damage of vaccines.

Aryo Sorayya, a freshman at Stanford University, and a team of researchers at HTD Biosystems are working to replace the freeze-sensitive, aluminum-based substances currently used in vaccines with freeze-stable, lipid nanoparticles (liposomes). The [vaccine](#) has been successfully tested and applied to make freeze-stable Tetanus vaccines, showing promise as a viable alternative to freeze-sensitive vaccines currently on the market.

## Intradermal Delivery of High Volume Polymeric Nanoparticle Based Vaccine Formulation Using a Hollow Microneedle System

Human skin is the first line of defense where the body engages microbes in the real world. In an effort to develop more effective vaccines, a formulation has been developed of particles that mimic viruses in size and shape.

A team of researchers from the University of Minnesota have demonstrated the capability of delivering particle based vaccines directly into the skin. The delivery device is equipped with needles much shorter than conventional needles used for intramuscular and subcutaneous injection.

Provided by American Association of Pharmaceutical Scientists

Citation: Groundbreaking vaccine research unveiled at AAPS Conference (2014, May 20) retrieved 10 April 2024 from <https://medicalxpress.com/news/2014-05-groundbreaking-vaccine-unveiled-aaps-conference.html>

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