



HIV virus



Inventors

- Howard Gendelman
- Alexander Kabanov
- Xinming Liu

UNeMed currently offers a variety of licensing options and collaborative development opportunities with the University of Nebraska Medical Center

Contact Information:

Matthew Boehm
Licensing Specialist
E: mboehm@unmc.edu

Nano-formulated Antiretroviral Therapy for the Treatment of HIV

Technology Fields: Infectious

Technology ID: 248

Patent Status: Application Filed

Summary

HIV is a major health threat that affects over 33 million people worldwide with over 2 million new infections each year. With the advent of antiretroviral therapy (ART), the management of HIV has greatly improved over the years. However, there are still major problems with ART. ART typically requires patients to take multiple pills each day with specific dosing schedules. Adherence to these treatment regimens is often hard for many patients to follow. Furthermore, many of the drugs used in ART have limited capacity to gain access to viral reservoirs in areas such as the central nervous system. Researchers at the University of Nebraska Medical Center, lead by Dr. Howard Gendelman, have developed targeted nano-formulations of ART drugs called NanoART. These targeted nanocarriers are able to deliver ART directly to macrophages which can then distribute the drugs throughout the body, including the central nervous system. These drugs have been tested in various in vitro models, mouse models of HIV infection and in large animals for PK/PD analysis. They have demonstrated sustained release and long lasting antiretroviral activity, which may allow these NanoART formulations to be given once every two to four weeks. Furthermore these NanoART formulations are also able to deliver significantly higher amounts of the antiretroviral drugs to the CNS.

Features and Benefits

- Sustained delivery of antiretroviral drugs
- Increased penetration into the Central Nervous System
- Decreased dosing for ART therapy

UNEMED:

986099 Nebraska Medical Center
Omaha, Nebraska 68198-6099
P 402.559.2468 F 402.559.2182
unemed.com