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NAPE: A Targeted Lipid Nanoparticle Platform for Next-Generation Cancer Therapies

A novel targeted nanomedicine platform utilizing NAPE-loaded lipid nanoparticles and peptid-anchor based tumor targeting to inhibit tumor invasion and enhance the efficacy of anti-cancer therapies.

The Challenge

Glioblastoma multiforme (GBM) is one of the most aggressive and lethal brain tumors, with current therapies offering only limited survival benefits.

Melanoma is characterized by high metastatic potential and frequent treatment resistance.

Existing therapeutic approaches often fail to eradicate invasive tumor cells, resulting in recurrence. There is a strong unmet need for targeted drug delivery systems.

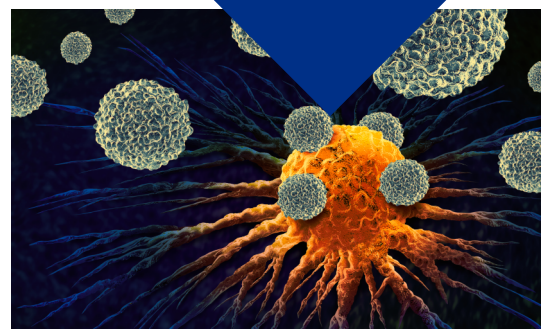
The Solution

N-arachidonylethanolamine (NAPE), a lipid molecule shown to inhibit tumor invasion.

Lipid nanoparticles (LNPs) encapsulating NAPE and therapeutic payloads.

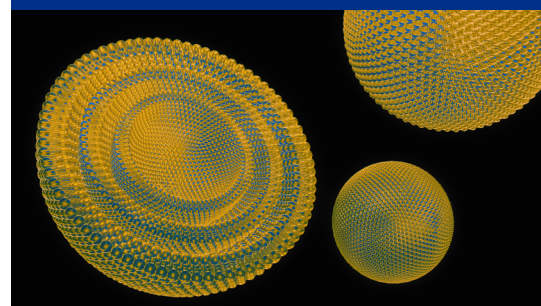
A fusion protein anchor enabling selective binding to tumor cells With anti-cancer drugs, creating synergistic effects

The platform can potentially be adapted to additional oncological indications



The Interaction Between the Immune System and Tumor Cells

LNP Modell



TRL 3
TECHNOLOGY
READINESS

200 Billion USD
Global
Nanomedicine
Market

INVESTMENT HOOK

Glioblastoma and metastatic melanoma remain among the deadliest cancers despite major advances in oncology. The NAPE platform introduces a dual-action therapeutic approach that combines intrinsic anti-invasive activity with targeted drug delivery, creating a versatile oncology platform with substantial commercialization potential.

WHAT ARE WE LOOKING FOR?

Pharmaceutical Partners

For preclinical and clinical development collaborations.

Investors

To accelerate validation, IP expansion and regulatory development.

Licensing Partners

For oncology-focused commercialization.

Patent Portfolio

National and international patent application filed covering the anti-cancer adjuvant application.

Second patent application covering the anchor technology is under preparation.

KEY VALUE PROPOSITIONS Dual Mechanism of Action

NAPE acts as both a therapeutic agent and a drug delivery platform.

Tumor-Specific Targeting

A peptide anchor targeting system improves drug accumulation in malignant tissue.

Platform Technology

The nanoparticle architecture enables incorporation of various therapeutic payloads.



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