

Creative Biolabs Expands Delivery Platforms for Innovative Bioconjugates and LNP Technologies

Creative Biolabs announces bioconjugation and LNP platforms to enhance targeted delivery and stability for gene therapy research.

SHIRLEY, NY, UNITED STATES, March 24, 2026 /EINPresswire.com/ -- As the therapeutic landscape moves beyond systemic administration toward cell-specific targeting, the demand for stable and efficient delivery vehicles has reached an all-time high. Creative Biolabs has responded by optimizing its conjugation chemistry and formulation pipelines, specifically focusing on the integration of multiple modalities within a single therapeutic agent.

Precision Targeting via Antibody-siRNA Conjugates

A significant portion of the expansion focuses on [antibody-siRNA conjugates \(ARCs\)](#). Unlike traditional chemotherapy or systemic RNAi treatments, ARCs facilitate the delivery of genetic payloads directly to the intended tissue, minimizing off-target effects and systemic toxicity.

The technical team at Creative Biolabs has refined the selection of linkers and conjugation sites to ensure that the siRNA remains stable during circulation while maintaining the antibody's binding affinity. This advancement is particularly relevant for researchers working in oncology and rare genetic disorders where extrahepatic delivery remains a primary hurdle.

"The team's expertise in siRNA chemical modification is invaluable. They designed and synthesized a novel 2'-O-methyl-modified siRNA payload and successfully conjugated it to our proprietary antibody fragment. The resulting ARC exhibited excellent nuclease resistance and a



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3-fold increase in gene knockdown efficiency in primary cells. Their data quality is unparalleled," said Professor A. Sharma.

Advances in [LNP Conjugation](#) and Formulation

In addition to ARCs, Creative Biolabs has broadened its expertise in lipid nanoparticle technology. While LNPs gained global prominence through mRNA vaccines, their application in therapeutic gene editing and protein replacement requires sophisticated modifications. The company's updated LNP conjugation services allow for the surface modification of nanoparticles with ligands or antibodies, enabling "active" targeting of specific cell populations.

"The industry is currently moving from first-generation delivery systems to more complex, multi-functional architectures," stated a senior scientist at Creative Biolabs. "By optimizing the [custom formulation](#) process, we can control the pharmacokinetic properties of these particles, ensuring they reach the target cytoplasm with high encapsulation efficiency and structural integrity."

Custom Formulation and Integrated Solutions

The company emphasizes a data-driven approach to custom formulation. This involves the systematic screening of lipid ratios, buffer conditions, and conjugation methodologies to identify the most stable configuration for a given payload.

Learn more, please visit <https://www.creative-biolabs.com/gene-therapy/>.

About Creative Biolabs

Creative Biolabs is a premier contract research organization (CRO) with years of experience in gene therapy delivery solutions. The company provides high-quality products and specialized services to academic institutions and pharmaceutical companies worldwide, fostering innovation in the field of gene therapies.

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