

Supporting Targeted Drug Delivery: Creative Biolabs' Engineered Exosome Platform

Modifying exosome surfaces and precision cargo loading technologies enhance targeted delivery, which advances disease treatment research at Creative Biolabs.

SHIRLEY, NY, UNITED STATES, April 18, 2025 /EINPresswire.com/ -- Due to biocompatibility and non-invasive nature, exosomes are emerging as potential carriers for evaluating and treating diseases. Creative Biolabs aims to overcome barriers in efficiency, developing new strategies for targeting and modifying exosomes for improved biocompatibility. Their services provide custom and refined solutions, including exosome modification for specific diseases and pre-loading techniques.

According to the chief scientist of



Creative Biolabs exosome technology platform, "We noticed a shift of focus from basic exosome research to targeted delivery and isolation techniques. With that comes the emergence of targeted tissue and cell engineering strategies for certain tissue delivery or cells."

In <u>engineering exosomes for targeted drug delivery</u>, Creative Biolabs can utilize chemical conjugation, genetic manipulation, or magnetic modification to add specific ligands or homing peptides on the exosome surface for targeting the lungs, liver, kidneys, brain, and heart. Of note is the membrane-anchored homing peptide display technology, as it greatly enhances the exosome accumulation in target tissues while retaining its biological activity.

Creative Biolabs also provides <u>exosome cargo loading</u> services for proteins, siRNA, miRNA, and small molecules. In post-loading, cargo activity and exosome integrity are preserved using electroporation, lipid-based transfection, and ultrasound treatment. "Our loading efficiency and

encapsulation stability have been rigorously validated and have successfully supported several research projects through the animal study stage," the expert added.

At the same time, <u>exosome pre-loading</u> has become a popular delivery method in recent years. Such methods assist in delivering nucleic acid drugs and protein expression products because the active therapeutic agents are placed within the exosomes prior to secretion. Creative Biolabs supports this workflow with donor cell line construction, stable cell line development, large-scale culture services, and other infrastructure for downstream research.

"In addition to the production and modification of exosomes, we place significant emphasis on the functionalization of exosomes; this renders them invaluable tools both in disease mechanism studies and the development of innovative therapeutics," the specialist summed up. "In all basic and preclinical research, there is a focus on providing individualized approaches that address the requirements put forward by clients."

For more services, please visit <u>https://www.creative-biolabs.com/exosome/</u>.

About Company

Currently, within the precision medicine and drug delivery domains, international researchers are receiving considerable support from Creative Biolabs alongside the advancement of engineered exosome technologies, which has been supported by years of technological competency and project experience.

Candy Swift Creative Biolabs +1 631-830-6441 email us here

This press release can be viewed online at: https://www.einpresswire.com/article/804046804

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire[™], tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information. © 1995-2025 Newsmatics Inc. All Right Reserved.