Successful Transfection of Fibroblast Cells with BioViva's CMV Gene Delivery Platform

CMV gene therapy to treat the world's most deadly diseases

SEATTLE, WA, USA, July 11, 2024 /EINPresswire.com/ -- Successful Transfection of Fibroblast Cells with BioViva's CMV Gene Delivery Platform

BioViva is building a future for patients. Our AAV gene therapy is based on proven technology and our CMV gene therapy platform supports larger genetic payloads that are needed to treat complex diseases, minimizing the number of treatments patients will n

CMV is large enough to treat the world's most deadly diseases

Researchers successfully transfected non-human fibroblast cells with BioViva's CMV gene delivery platform, a significant advancement in gene therapy. According to the Pan American Health Organization, 7 out of 10 deaths in people over 70 are from aging-associated non-communicable diseases (AA-NCDs), and aging itself is the single greatest risk factor for these conditions. Current gene therapy systems can address simple genetic disorders but fall short for complex issues that require larger and potentially redosable gene therapies. BioViva conducted the first non-human primate (NHP) fibroblast study this year to validate the efficacy of its CMV platform. Fibroblast cells from NHPs, chosen for their similarity to human cells, were successfully transfected with CMV. This study serves as a proof-of-concept for the platform's effectiveness in delivering large genetic payloads.

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> *Dr. He Jiang*

Dr. He Jiang, CEO of Future Health Technologies, BioViva's licensing partner, emphasized the significance of this achievement: "This is the first step towards proving that our technology, the novel CMV viral vector, can infect fibroblasts from the skin cells of non-human primates, which are very similar to humans. We feel more confident and encouraged to move ahead with our gene therapy research."

BioViva transitioned its focus to cytomegalovirus (CMV) in 2018, which can carry a genetic payload at least three times larger than the adeno-associated virus (AAV) vectors, the most commonly used vector in gene therapy at the moment. The company aims to expand this capacity to 10 times that of AAV. CMV's advantages include its ability to be injected or delivered intranasally, its low immunogenicity, and its potential for redosing.
Liz Parrish, CEO of BioViva, elaborates on the strategic shift: "After working with AAV, we recognized the need for a more robust vector capable of addressing complex disorders. Our goal has always been to enable people to maintain their health for longer periods. This new platform has the potential to achieve that and much more."

The CMV platform's ability to carry large genetic payloads opens new avenues for treating a variety of complex diseases, including neurodegenerative conditions like Alzheimer's. BioViva has completed a pre-IND (Investigational New Drug) application for a dual gene therapy with AAV targeting Alzheimer's and other forms of dementia, positioning the company at the forefront of innovative treatment approaches.

BioViva Science Website

About BioViva
BioViva Science, founded in 2015, is dedicated to addressing complex disorders and aging-related diseases through advanced gene therapies. The company is developing an innovative gene therapy platform designed for larger payload delivery. BioViva focuses on drug development and licensing aimed at preventing, treating, or reversing the underlying causes of the most common diseases in the developed world: aging-associated non-communicable diseases (AA-NCDs). BioViva and its CEO, Liz Parrish, is a humanitarian and has been featured in prominent media outlets such as the BBC, The London Times, Forbes, National Geographic, and The Guardian.

About Liz Parrish, MBA
Liz Parrish is the CEO of BioViva. She is a humanitarian, entrepreneur, author, innovator, and a leading advocate for genetic cures. As a proponent of progress and education in gene therapy, she serves as a motivational speaker, raising public awareness about the potential of life sciences to transform healthcare.
About Future Health

Future Health is the licensee of Bioviva's gene therapy platform exclusively to the area of China. The company boasts a team of scientists and specialists who have brought innovative therapies through to regulatory approval in the USA.

Liz Parrish
BioViva USA Inc
info@bioviva-science.com
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