TECHNOLOGY

Novel Technique for Enhanced Viral Protein Expression: Implications for Vaccine Preparation

OVERVIEW

Background

Influenza or the flu is a contagious respiratory illness caused by the influenza viruses. The flu infection may manifest in the form of mild to severe illness, and at times can lead to death. Certain groups of the population, such as infants and the elderly are at high risk for serious complications. The best way, according to the CDC to prevent the flu is by getting vaccinated each year. During the 2009-2010 H1N1 flu pandemic, there was urgent need for vaccines to be delivered and administered in a timely manner and, this continues to be the case even in the present times. Therefore, methods to expedite and enhance the production of effective vaccines are very much in demand.

Innovative Technology

Researchers at the University of Maryland, College Park have developed a novel technology of manipulating an influenza viral gene such that it improves viral protein expression in infected cells and results in higher protein content in virions and supernatant of infected cells. This technology is highly valuable for improving antibody responses and/or improving antigenic protein content of influenza vaccines.

Advantages

1) Higher levels of viral protein expression compared to current methods

Applications

1) Improving the expression of potential viral vaccine candidate proteins for vaccine production

Please contact Sangeetha Raghavan at sangeeth@umd.edu, 301-405-0716 for more information.

CONTACT INFO

UM Ventures
0134 Lee Building
7809 Regents Drive
College Park, MD 20742
Email: umdtechtransfer@umd.edu
Phone: (301) 405-3947 | Fax: (301) 314-9502

Additional Information

INSTITUTION

University of Maryland, College Park

PATENT STATUS

Patent(s) pending

LICENSE STATUS

Contact OTC for licensing information

CATEGORIES

- Vaccines

EXTERNAL RESOURCES

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