TECHNOLOGY

Partial or Complete Plasmid-Free Recovery of Influenza Viruses

OVERVIEW

Background

There are two kinds of influenza vaccines that are licensed for human use in the United States: an inactivated vaccine and a live-attenuated vaccine virus. The current strategies to produce ideal vaccine candidates are labor-intensive, time-consuming and cumbersome. Therefore, there is an urgent need to develop vaccines that are easy to produce and highly effective.

Innovative Technology

Researchers at the University of Maryland, College Park have developed a technology that enables partial or complete plasmid-free recovery of the influenza virus. This novel invention is amenable for the rapid production of influenza vaccines by reverse genetics without the use of plasmids for one or more of its genes.

Advantages

1) Rapid method to develop vaccines. It takes approximately 2 weeks less than the currently used techniques
2) Plasmid-free technique that obviates the need for cloning and screening multiple clones before vaccine see stock is prepared.
3) Quick and convenient to introduce mutations to enhance immunological features and or attenuate the virus
4) Possibility for generation of a seed stock that better reflects the virus population in the vaccine candidate sample

Applications

1) Vaccine Development for seasonal and pandemic influenza

IP status: Patent Pending
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Additional Information

INSTITUTION

University of Maryland, College Park

PATENT STATUS

Patent(s) pending

LICENSE STATUS

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CATEGORIES

- Vaccines

EXTERNAL RESOURCES

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