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A "One-Plasmid" System to Generate Influenza Virus in Cultured Chicken Cells for Potential Use in Flu Vaccine

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Inventors

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Invention Description

In the process of developing vaccines against influenza, generating influenza virus in cultured cells using a minimal number of plasmid constructs has been a long-term challenge. In an effort to reduce costs and save time in constructing these plasmids a new technology has been developed to generate influenza virus from cultured eukaryotic cells using a single plasmid DNA.

Using several plasmids in the previous methods made the process lengthy, expensive and gave only a low yield of recombinant virus. This technology allows for a simpler approach for generating vaccine seeds. Furthermore, it allows for high yield and easier screening of generated influenza virus.

Intellectual Property Status:
Patent Pending

Potential Applications

By generating influenza virus in high titers and by facilitating screening them, this new technology will allow for:

- **Fast development of new flu vaccines, particularly with the urgent need to stop pandemics such as the recent A/H1N1 swine flu**
- **Influenza genetic studies that contribute to the understanding of its evolution and the return of strains long believed to be eradicated**

Benefits and Advantages

- **Simpler than previous methods**
- **Generates high titers of recombinant virus**
- **Screening of recombinant virus is easier**

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