

## Proposal of Artificial Pandemics by Infectious Attenuated Live Influenza Vaccines to Save the World from Dangerous Wild Type New Influenza Pandemics –Operation Backfire-

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### ABSTRACT

**Background:** Fears of a global pandemic are mounting as experts have warned at the annual World Economic Forum in Davos 2018. They claim there will be 'no way to stop' a killer disease from claiming millions of lives. New pandemic is feared to appear in the world. Especially H7N9 is the most plausible and feared candidates. H5N1 is also a dangerous candidate. Spanish influenza pandemic killed 50 million to 100million people in the world. Total population at that time was 2.2 milliard. Present population is 7.4 milliard. Dr. Nabarro D, one of the most senior public health experts at the World Health Organization (WHO) told the BBC that the "range of deaths could be anything between five and 150 million". Ordinary vaccine is too costly for many people in developing countries. And vaccines are not available in early stages of pandemic.

**Methods:** Ferret has same nature to influenza with man. It has human-like  $\alpha$ 2-6 linked sialosides, while birds  $\alpha$ 2-3. Ferret nasal mucosa is carcinized using carcinogen for easiness of incubation. Bird influenza virus is attenuated by reverse genetics. The virus is marked by green fluorescent protein. This attenuated virus is sprayed to many cultured cancer cell specimen incubated. In some specimen attenuated virus will mutated to increase in cancer cells, checked by green fluorescence. Then the virus is tested to infect ferret and then human volunteers without serious symptom. Virus with strongest virus titer to infect ferret is selected as seed virus of infectious attenuated live vaccine. The seed virus will be increased in incubated cancer cells all over the world and sprayed to vulnerable people and inevitable necessitated persons for basic life of citizens, e.g., soldiers, students, people in slums, medical staffs, and people engaged in lifeline. Drones may be used to enhance infection, spraying in slums thin capsules including the live vaccine. Thin capsules are melted at human nasal mucous membrane. Thus basic immunity is gained by many people against dangerous virus.

**Remarks:** Highly virulent influenza virus kills cancer cells of ferret. So this system cannot be used for producing biological weapons and can be used only for peaceful purposes. Infectious attenuated live influenza vaccine for H7N9 should now be prepared. Artificial pandemics of dangerous viruses as H7N9, H5N1 etc., are to be created serially with few years interval. Artificial pandemic should be initiated before wild type pandemic starts. One reason is to avoid reassortment (mixture) of virus RNA and another is to avoid clinical and social confusion. It should not overlap with influenza season. The number of victims seems to be less than 300 thousands in the world. As the live vaccine is less virulent than A/H1N1. Cooperation of many people, researchers, companies, institutes, organizations, nations, and especially International Cooperation seem to be necessary to achieve -Operation Backfire- successfully.

**Conclusion:** A novel method is proposed to stop killer disease of global influenza pandemic. The method is preemptive attack by artificial pandemic against candidates of dangerous wild type new influenza viruses. It utilizes infectious attenuated live vaccines of influenza virus incubated in cancerized ferret's nasal mucous membrane. The

*live vaccines are to be distributed all over the world. The number of expected victims of artificial pandemic seems to be less than 300 thousands. The proposed artificial pandemic, if successful, might save the world from disastrous death toll by next wild type new influenza pandemic.*

## Keywords

New Influenza, Reduce Victims, Artificial Pandemics, Infectious Attenuated Live Vaccines, Ferret cancer, Incubation of Cancer, Incubation of Virus.

## Introduction

Fears of a global pandemic are mounting as experts have warned at the annual World Economic Forum in Davos 2018. They claim there will be 'no way to stop' a killer disease from claiming millions of lives [1]. New pandemic is feared to appear in the world. Especially H7N9 is the most plausible and feared candidates [2-4]. H5N1 is also a dangerous candidate [5]. Spanish influenza pandemic killed 50million to 100million people in the world [6,7]. Total population at that time was 2.2milliyard. Present population is 7.4 milliyard [8]. Dr. Nabarro D, one of the most senior public health experts at the World Health Organization told the BBC that the "range of deaths could be anything between five and 150 million" [9]. While professor Osterholm MT of Minesota University predicts the number of death toll might be 180 to 360 million assuming the situations were the same with 1918 Spanish Influenza [10]. No one can tell future victims of wild type pandemic to be less or more, because situation strongly depends on virulence of influenza virus. There are two kinds of influenza [7]. One is a seasonal influenza, which infects people mainly in winter. But in tropical and subtropical and subtropical zones influenza infects people through the whole year. Another is a new influenza that suddenly appeared. As nobody has immunity it causes pandemic at any season and many people suffer with considerable death toll compared to seasonal influenza. Seasonal influenza, in the past, had been a new influenza.

In this report, a new method is proposed to reduce the number of victims of wild type pandemic to 300 thousands (less than that of A/H1N1 [11]).

Small scale man to man transmission of bird flu H7N1 is now occurring [2]. But continuous man to man transmission is not yet occurring. As the virulence is high, patients die soon and not have time to transfer virus to another persons. It is said that when virulence become low so that death rate become 30 to 20% H7N9 is feared to cause pandemic. Approximately 300 million people are feared to become victim.

## Materials and Methods

Infectious attenuated live influenza vaccine of candidate virus of new influenza pandemic is to be distributed to many people. Artificial pandemic happens as people have no immunity against it. Resultantly, they will obtain basic immunity to the virus. So wild type outbreak of pandemic does not occur. Even if wild type human to human transfer occurs, the scale is of seasonal influenza and number of victims are much less.

Ferret has same nature to influenza with man. It has human-like 2-6 linked sialosides, while bird's 2-3 [4].

The method to create infectious attenuated live influenza vaccine

- Nasal mucosa of ferret is made cancer by carcinogen, e.g., by benzopyrene [12]. Nasal mucosal cancer cells are easier to incubate compared to normal cells. This mucosal cancer cells are to be made certain to be infected to human influenza virus.
- Wild bird influenza virus is to be attenuated by reverse genetics [4,13].
- The virus is made to produce green fluorescent protein [4,14].
- Attenuated bird influenza virus is to be sprayed to incubated cancer cells. This process is to be achieved to many samples. Find samples in which virus can increase by mutation. This is made certain by green fluorescence protein.
- Make certain that this virus can infect live ferrets. And also make certain that symptoms of ferrets are not serious.
- Virus with greatest viral titer is to be selected as seed virus.
- Make certain that ferrets infected by attenuated virus are not infected to wild bird influenza or even if infected symptoms are not serious.
- Make certain that these viruses are transmitted easily between ferrets and transmitted easily between human volunteers. Make also certain that symptoms of human volunteers are not serious. As nasal mucosal cancer cells are used for incubation, airborne transmission seems to be easy.
- Virus passed above mentioned all tests are taken as seed virus of infectious attenuated live influenza vaccine.
- Frequently check as below if nature of virus is not changed during incubation in cancer cells.

## Checking points

- Infectious attenuated vaccine is easily transmitted airborne between live ferrets causing no serious symptoms.
- Live attenuated vaccine can be easily transmitted from ferrets to human volunteers and causes no serious symptoms.
- Viruses are transmitted airborne easily between volunteer people and cause no serious symptoms.
- Ferrets already infected by live vaccine many weeks or months ago are not easily infected to wild type bird virus, and even if infected, their symptom is not serious.
- Human volunteers already infected by live vaccine many weeks or months ago are not easily infected to wild type bird virus, and even if infected, their symptom is not serious.

## Initiation of Operation Backfire

It should be started as it is ready. If artificial pandemic overlaps with wild type pandemic, reassortation (mixture) of RNA may happen in patients' cell infected to both of them simultaneously. It should avoid influenza season of winter as well by the same reason. If infection is done intensively, artificial pandemic will be finished

within 2 month all over the world (initiate on April or September). It will not increase virulence as 1918 Spanish influenza did during long period of transmission. Especially vulnerable people, e.g., soldiers, students, people in slums, medical staffs, and people engaged in lifelines, policemen, firemen, and officials of politics are to be eagerly infected by spray of live vaccine virus on the nose.

As Infectious Live Attenuated Vaccine is incubated in nasal mucosal cancer, airborne transmission seems to be dominant and strongly infectious between people.

Method to increase Infectious Attenuated vaccine and to distribute all over the world.

Quality of Infectious attenuated live influenza vaccine should be kept assured concerning its infectivity, effectiveness against wild bird influenza, and minimal virulence. If once low quality infectious vaccine were infected to men, it will result pandemic with miserable result.

Seed of vaccine should be kept only in limited central facilities. While incubation of cancer cells of ferret should be kept widely in the world with considerable quality assurance. Contamination by bacteria and virus should be avoided. Change of cancer cell nature also should be avoided as well. Cancer cells in the world facility should often be replaced by ones sent from central facilities.

In the case of initiation of Operation Backfire, live vaccine is transferred from central facilities to cancer cell incubation facilities in the world and increased. Live vaccine is sprayed to the noses of people.

Especially vulnerable young people (soldiers, students, and pupil) to new influenza have priority. People in slums, Medical staffs also have priority. Inevitably necessitated persons for basic life of citizens, e.g., people engaged in lifeline, policemen, Fire fighters, officials of the government and cities have also priority.

If artificial infection is achieved to a certain number of people, live vaccine is transferred from people to people. Basic immunity is thus obtained by many people.

### Remarks

Highly virulent influenza virus kills cancer cells of ferret. So this system cannot be used for producing biological weapons and can be used only for peaceful purposes.

Infectious attenuated live influenza vaccines should be prepared for H5N1, H5N8, and H10N8 as well as H7N9. And they should cause artificial Pandemics serially in time intervals of a few years. Against H7N9 -Operation Backfire- is expected to reduce number of victims to less than 300 thousands, as it will be less virulent than

New Influenza A/H1N1 [11]. Infectious attenuated live influenza vaccine for H7N9 should now be prepared.

Cooperation of many people, researchers, companies, institutes, organizations, nations, and especially International Cooperation seem to be necessary for achieving -Operation Backfire- successfully to save many People from Wild New Influenza Pandemic.

### Discussion

Patients of respiratory system and pregnant women are to be inoculated with inactivated vaccine of virus of Operation Backfire prior to initiation of Operation Backfire. But if natural outbreak of pandemic seems to be very near, we have not sufficient time for inoculation. Otherwise many vulnerable young people to new influenza have to be sacrificed.

To reinforce infection, drones may be used in slums to widely distribute infectious attenuated live influenza vaccine protected by capsule easily melted on mucous membrane. But avoid markets. Although many people exist at markets, many live birds are sold with having influenza virus.

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