International Conference on Flu

Date & Venue: June 08-10, 2015 Chicago, USA

(**Theme:** Understanding the Flu; pathology, prevention, containment and risk analysis)

Summary:

As the world shrinks the ease with which an infectious diseases spreads amongst the population increases exponentially. Influenza or flu as it is commonly known is one such disease. The flu virus is unstable and mutates often. This virus while mostly non-lethal can easily develop the ability to kill and infect millions of people, as seen with the Spanish Flu of 1918. The scientific community must therefore work together to make sure any new influenza strain is constantly monitored and with the help of surveillance programs prevent a lethal influenza epidemic.Due to the non-stable nature of the flu virus many companies are trying to develop a universal vaccine which will work against all strains of influenza. The NIH has 5 Centers of Excellence for Influenza Research and Surveillance where groundbreaking research is carried out. The amount of influenza vaccines doses ordered increases by 5% yearly and the NIH spends around $ 312 million dollars on influenza related research yearly.

Importance & Scope:

Influenza is a highly contagious disease affecting almost all mammals and birds. It is an unstable virus as it has a high mutation rate which gives it the potential to become lethal, for example, the Spanish Flu of 1918. Experts from various fields like virology, medicine, immunology, microbiology, public health planning, epidemiology, pharmacology and vaccinology all work on the flu virus.

As the flu virus mutates easily there are many strains and immunity to one strain does not guarantee immunity against another and so researchers are working to develop a universal vaccine that will be effective for all strains of influenza virus. Studies are also being conducted to find new drugs against influenza as some strains have started to show resistance. Public health policy makers are continually updating their strategies to contain outbreaks on local and global scenarios.

Why Chicago?

Chicago faced a deadly flu epidemic from 1918-1919 where around 8,500 people were killed in eight weeks. A great percentage of the city was infected by the Spanish Flu and a high proportion of these cases did not survive. In order to prevent such a tragedy from happening again an influenza surveillance program was set up and now Chicago has one of the best surveillance programs in the USA.

Chicago is the third most populous city in the United States. The city is an international hub for finance, commerce, industry, technology, telecommunications, and transportation; with O'Hare International Airport being the busiest airport in the world

Conference Highlights:

- Containment of Flu Outbreaks
- Threat of Cross-Species Strains
- Mutation and Influenza Virus
- Flu and Vaccines
- Potential Drug Targets
- Influenza Strains : Detection and Differentiation
- Influenza and Co-infection
- Influenza : Alternate Treatment Methods
- Molecular Biology of Influenza Viruses
- Immune Responses to Influenza Infections
- Influenza and Antivirals
- Assessment of Pandemic Preparedness
- Social Impact of Influenza

Why attend???

As mentioned earlier, influenza research, involves people from various disciplines and people form such various fields do not always get a chance to meet and discuss the current developments in their respective areas. Flu-2015 seeks to bring all such people together and thereby provide them a platform with which to discuss and exchange ideas with one another. Flu-2015 is set to be graced by World-renowned speakers who will shed light on the most recent techniques, tactics, and the newest updates in Influenza Research.

A Unique Opportunity for Advertisers and Sponsors at this International event:

http://flu.conferenceseries.com/Sponsorship.pdf

Major Virology Associations around the Globe

- American Society for Virology
- European Society for Clinical Virology
- Hellenic Society of Virology
- Danish Society for Virology
- Pan American Society for Clinical Virology
- International Society for Influenza and Other Respiratory Virus Diseases
- International Society for Antiviral Research

Target Audience:

Flu-2015 would like to extend an invitation towards all virologists, immunologists, microbiologists, epidemiologists, doctors, public health planners and all those working on the Influenza virus to attend the International Conference on Flu.

Hospitals in Chicago:

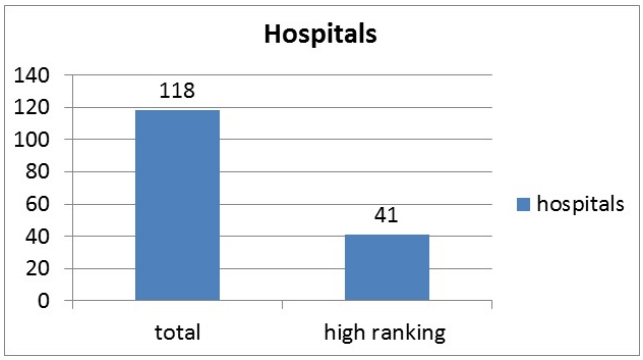

Figure 1: Chicago has a total of 118 hospitals .41 of these hospitals are amongst the most highly ranked in the United States for their overall operations. Besides these 41 hospitals there are others which rank high for a particular department.

Source Reference 1

Universities and labs associated with influenza research

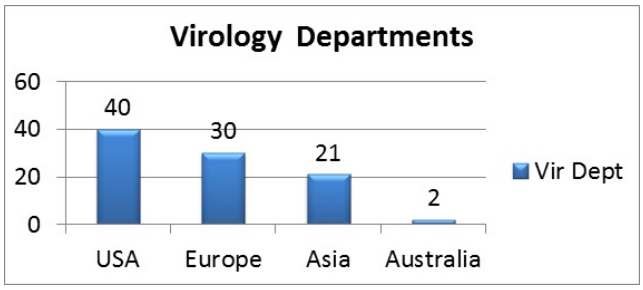

Figure 2: Institutes with Virology Departments

Source

Reference 2

Reference 3

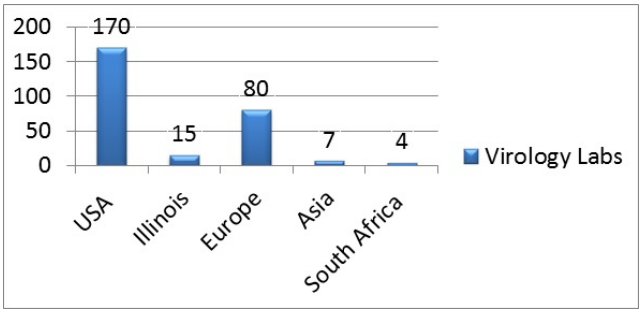

Figure 3: Standalone Virology Labs worldwide

Source

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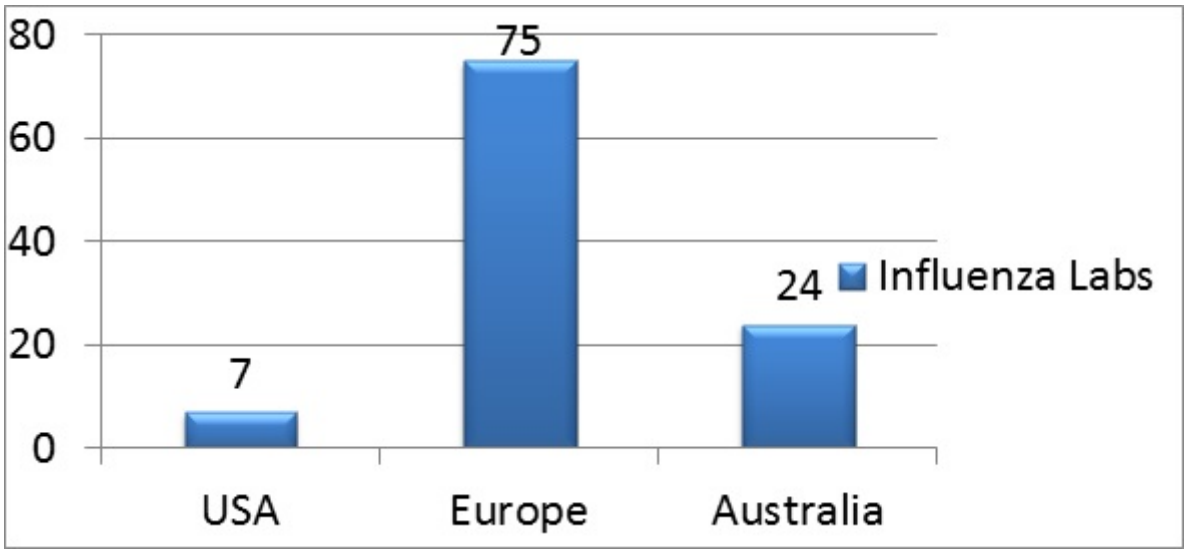

Figure 4: Labs dedicated exclusively to influenza research

Source

Reference 9

Reference 10

Reference 11

Reference 12

Reference 13

Glance at Market of Influenza Related Products:

The NIH has 5 Centers of Excellence for Influenza Research and Surveillance where groundbreaking research is carried out. The amount of influenza vaccines doses ordered increases by 5% yearly and the NIH spends around $ 312 million dollars on influenza related research yearly. With the increase in the population that falls into the high-risk category the market for flu related products is predicted to rise. Unprecedented deadly strains though unfortunate also lead to a short but sharp rise in demand for such products.

Market Growth of Influenza Related Activities

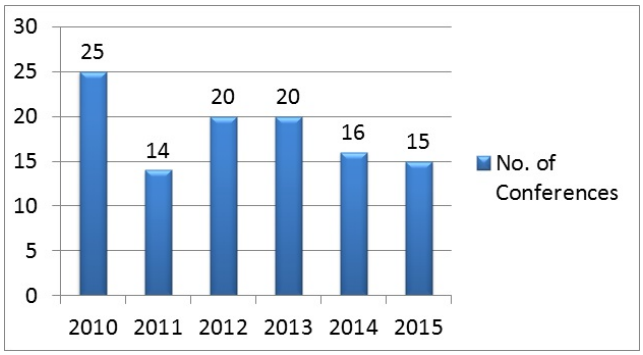

Figure 5: No of conferences held on influenza

Source

Reference 14

Reference 15

Reference 16

Reference 17

Reference18

Reference 19

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Reference 21

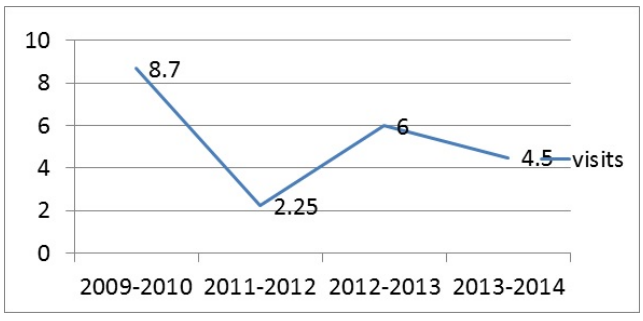

Figure 6: Percentage of hospital visits that are influenza related

Source

Reference 22

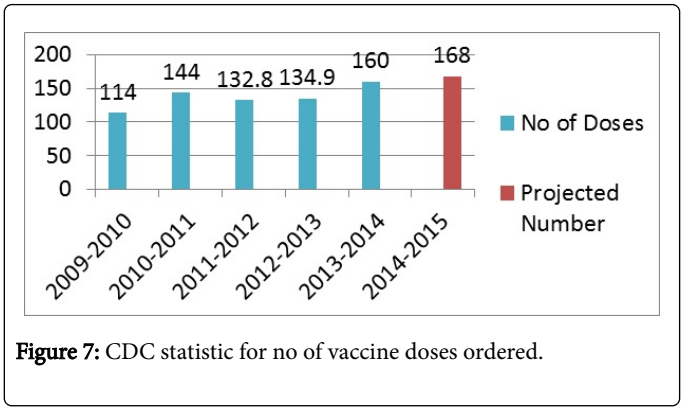

Figure 7: CDC statistic for no of vaccine doses ordered.

Source

Reference 23

Influenza Related Products

Companies that Manufacture Anti-virals:

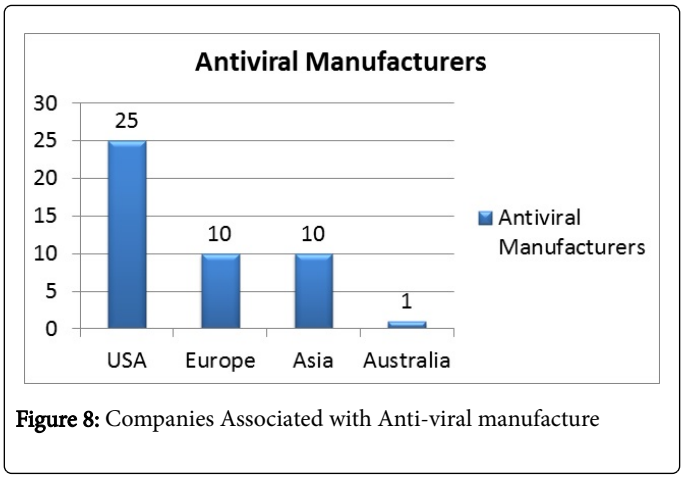

Figure 8: Companies Associated with Anti-viral manufacture

Source

Reference 24

Reference 25

Reference 26

Companies that produce influenza vaccines (USA)

GlaxoSmithKline

ID Biomedical Co-orporation Quebec

Sanofi Pastuer

BioCSL

Novartis Vaccines and Diagnostics

Protein Sciences

MedImmune

Chiron Co-orporation

Drugs used to treat influenza

Only few antivirals are currently manufactured to combat the influenza virus. Most of the other drugs treat the symptoms rather than deal with the virus.

Oseltamivir (Tamiflu®) is an anti-viral that works against influenza. It is administered orally. Zanamivir (Relenza®) is an inhaled anti-viral.

These drugs are neuraminidase inhibitors that have activity against both influenza A and B viruses.

Amantadine and rimantadine are antiviral drugs that belong to the adamantanes. These medications are active against influenza A viruses, but not influenza B viruses. Unfortunately most of the viral strains in circulation these days are resistant to the aforementioned adamantanes and so Oseltamivir and Zanamivir are mainly used to treat influenza cases.

There are drugs available that treat the symptoms of influenza rather than combat the virus itself:

- Decongestants
- Antipyretics
- Anti-Inflammatory drugs
- Pain killers
- Cough medicine
- Antibiotics

The above list is just a representation of some of the drug classes used to treat influenza and is in no way meant to be an exhaustive list.

References

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