



Virology PHA-251

Lecture Series I

Virology

Historical Background

Dr. Haitham M. Amer, DVM, Ph.D.

**Virology Department, Faculty of Veterinary Medicine, Cairo
University, Giza, 12211, Egypt**

Virology Time Machine

Early Records:

3700 BC in ancient Egypt: first written record of paralytic Poliomyelitis



1143 BC in ancient Egypt: Ramesses V mummy shows that he died from small pox



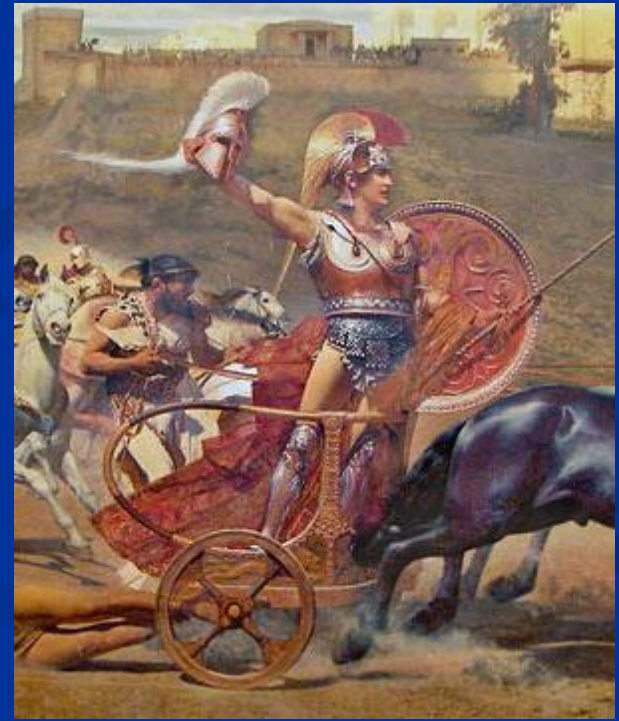
Virology Time Machine

Early Records:

1000 BC in China: Smallpox was endemic. The practice of variolation was developed.



850 BC in ancient Greece: first written record of Rabies (in Iliad of Homer)



Virology Time Machine

Foundation of Microbiological Sciences:

1673 Antonie van Leeuwenhoek :

First light microscope



1796 Edward Jenner:

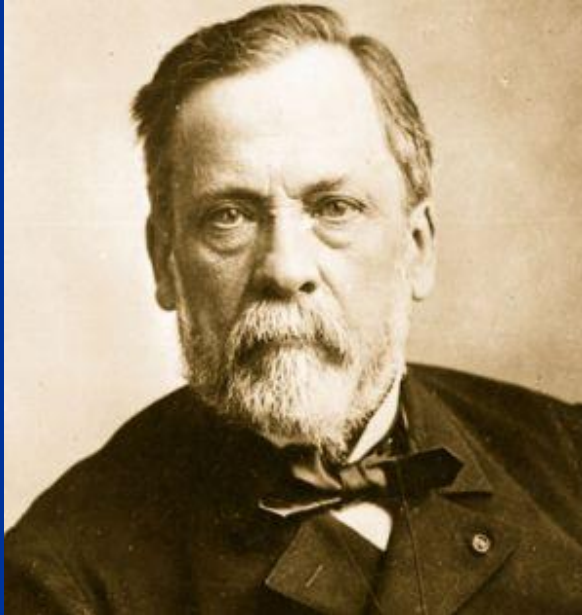
First vaccination; against Smallpox virus



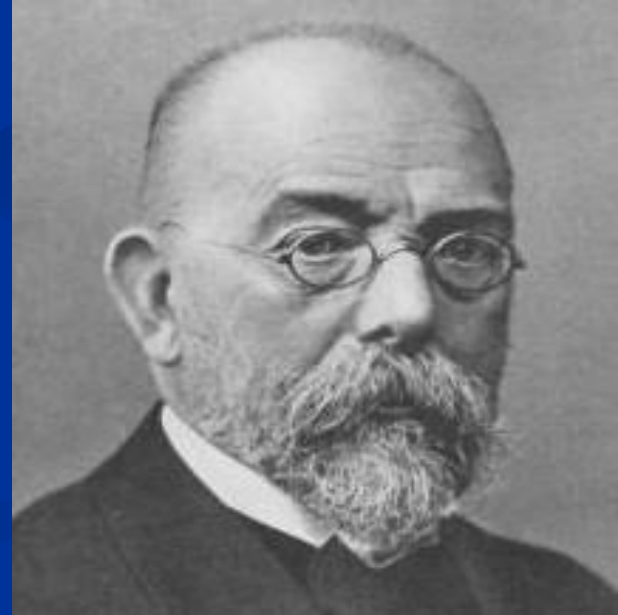
Virology Time Machine

Foundation of Microbiological Sciences:

1856-1885 Louis Pasteur: Fermentation
- Germ theory – Vaccination against Rabies and Anthrax



1876-1905 Robert Koch: Koch's postulates
- Identified and isolated Cholera, anthrax and T.B.



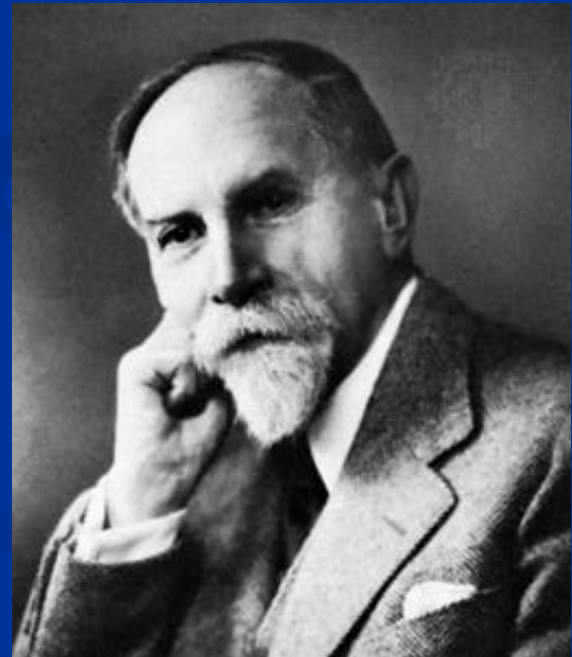
Virology Time Machine

Discovery Period:

1840 Jacob Henle: Hypothesized the existence of very small infectious agents that can not be seen by light microscope



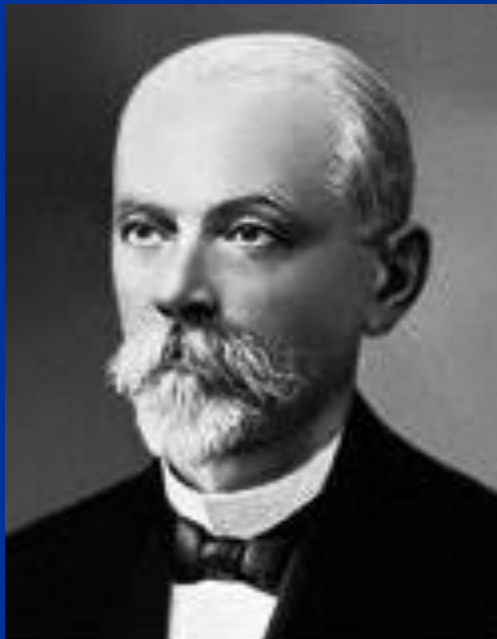
1879 Adolf Mayer: Found that Tobacco Mosaic Disease is transmitted by a so-called Infectious agent.



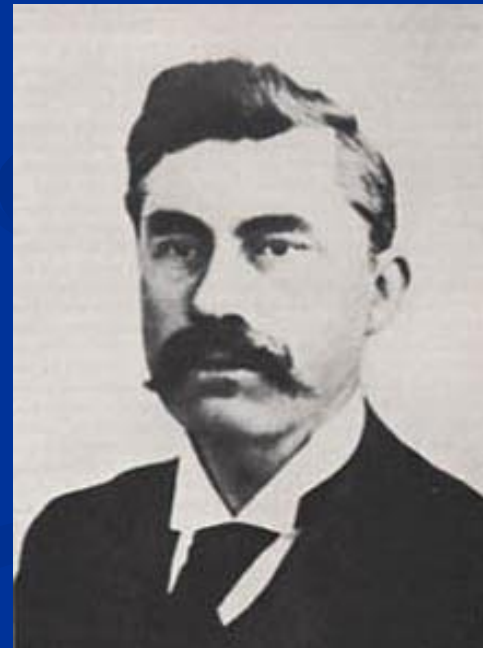
Virology Time Machine

Discovery Period:

1892 Dmitri Ivanowki: Extracts from Diseased Tobacco passed from bacterial Filters but still capable of causing infection



1898 Martinus Beijerinck: First who Developed the modern idea of the virus and Termed it: “*Contagium Vivum Fluidum*”

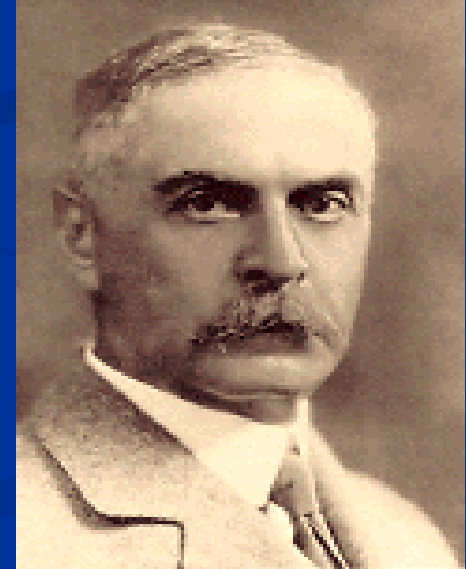


Virology Time Machine

Discovery Period:

1898 Loeffler and Frosch: Identified the First animal virus (Foot and Mouth Disease)

1909 Landsteiner and Popper: Identified The First human virus (Poliomyelitis)



Virology Time Machine

Discovery Period:

1915-1917 Tword and D'Herelle:

The first who identified viruses capable of infecting bacteria (Bacteriophage)

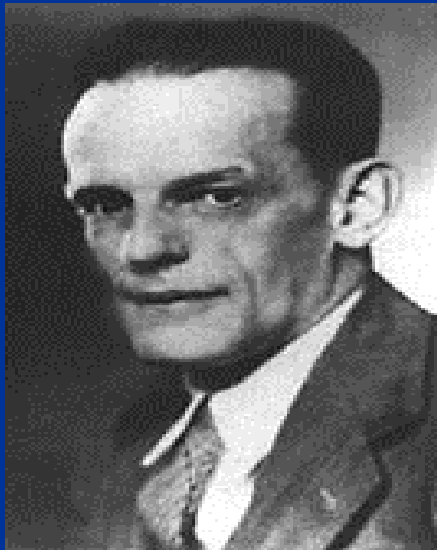


Virology Time Machine

Remarkable Discoveries:

1937 Max Theiler:

Propagated yellow fever virus on chicken embryo to produce an attenuated vaccine.



1949 Enders and Colleagues:

Propagated poliomyelitis virus in human tissue culture.



John
Enders



Thomas
Weller



Frederick
Robbins

Virology Time Machine

Remarkable Discoveries:

1952 Hershey and Chase:

Used bacteriophage to confirm that DNA is the genetic material.



1964 Baruch Blumberg:

First identification of hepatitis B virus



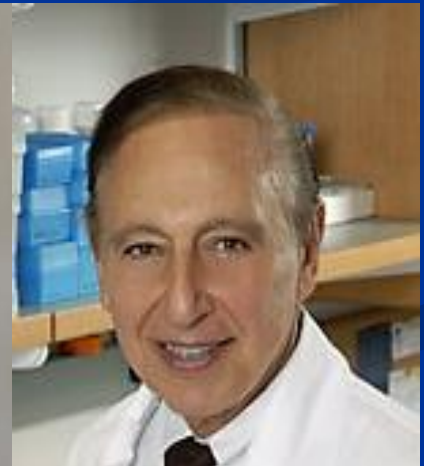
Virology Time Machine

Remarkable Discoveries:

1975 Temin and Baltimore: Discovered reverse transcriptase enzyme in retroviruses



1983 Montaigner and Gallo: Discovered human immunodeficiency virus (HIV)



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الحمد لله الذي جعلنا من عباده
العلماء

bro2Alain