

History of Vaccines

Stanley A. Plotkin

Sources of Information on The History of Vaccines:

Short: Chapter 1 of the book *Vaccines*,
By Plotkin and Plotkin

Medium: *Vaccines, A Biography*
Edited by A. Artenstein

Long: *Vaccination, A History*
By H Bazin

“The impact of vaccination on the health of the world’s peoples is hard to exaggerate. With the exception of safe water, no other modality has had such a major effect on mortality reduction and population growth.”

Susan and Stanley Plotkin, A Short History of Vaccination, in *Vaccines* 1st Edition, 1988



Lady Mary Wortley Montagu

VOLTAIRE ON VARIOLATION

Eleventh Philosophical Letter

“The women of the Caucasus are since time immemorial in the habit of giving smallpox to their children, even at the age of six months, by making an incision on the arm and there inserting in that incision a pustule that they have taken carefully from the body of another child...The Caucasians are poor and their daughters are beautiful, and it is they who furnish beauties to the harem of the Sultan...A commercial people are always alert to their interests...The Caucasians perceived that among a thousand persons one finds hardly one that catches smallpox virus twice...”



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1742-1823



Fig. 1. The head of Sarah Nelmes from Jenner's *Jesuitry*

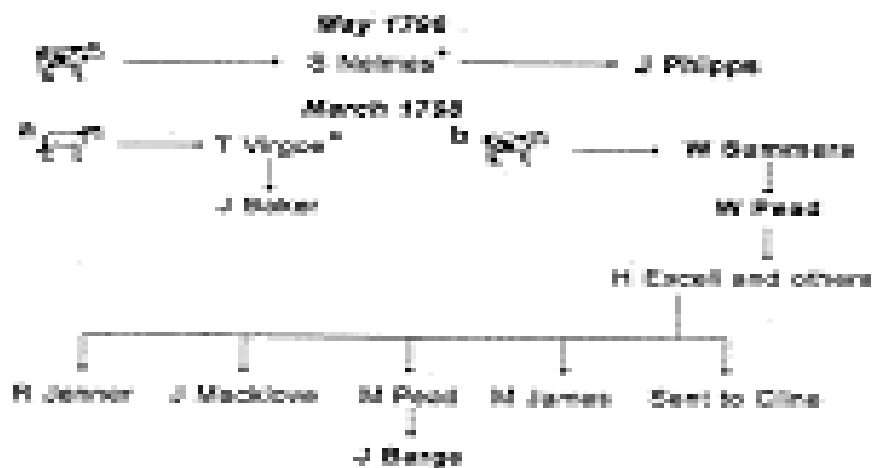


Fig. 2. Jenner's vaccination described in the *Jesuitry*. Aerially-acquired infection. Persons named in bold type assumed vaccination



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1822-1895



Pouilly-le-fort (Pasteur Institute)



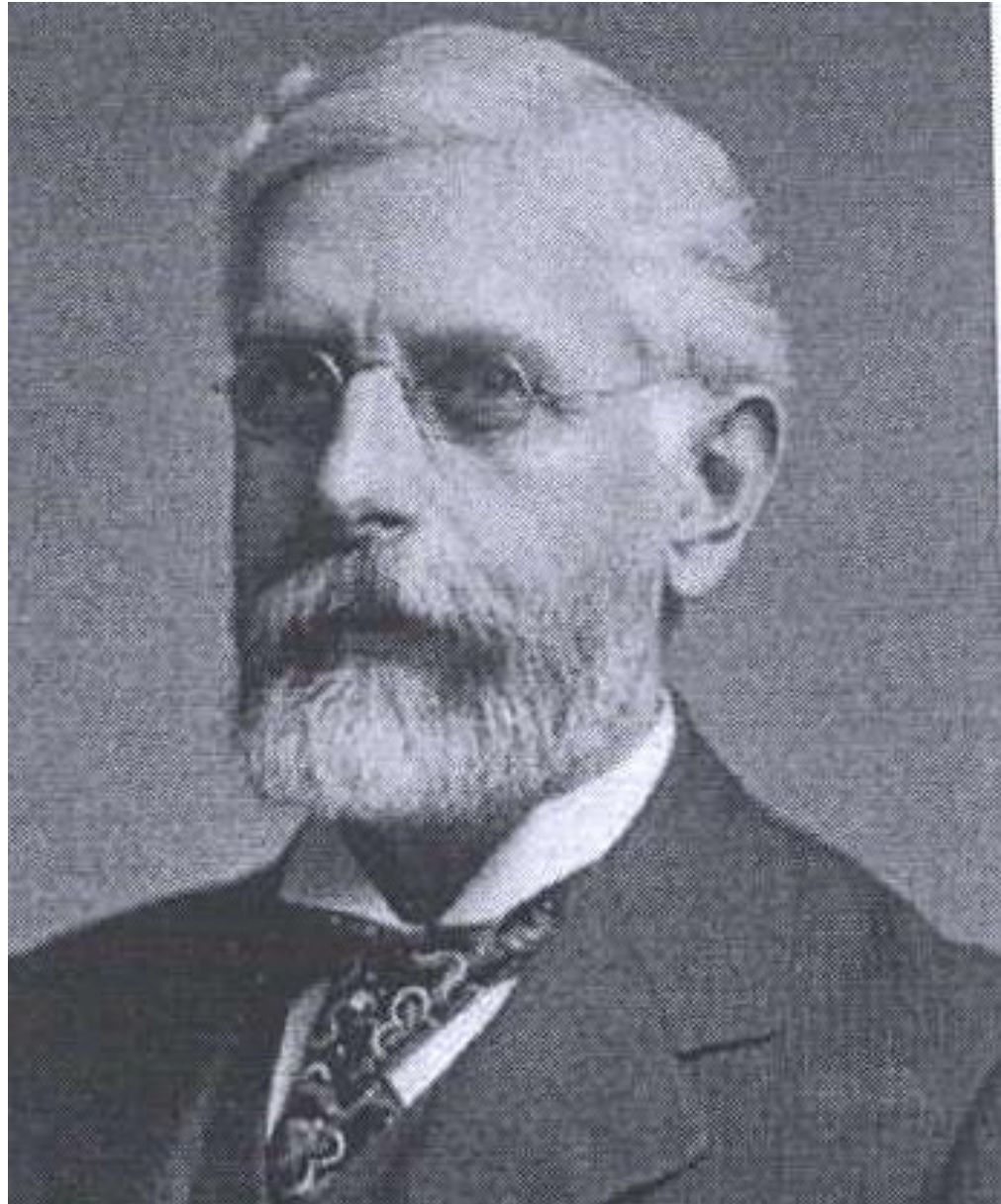
Joseph Meister
1885

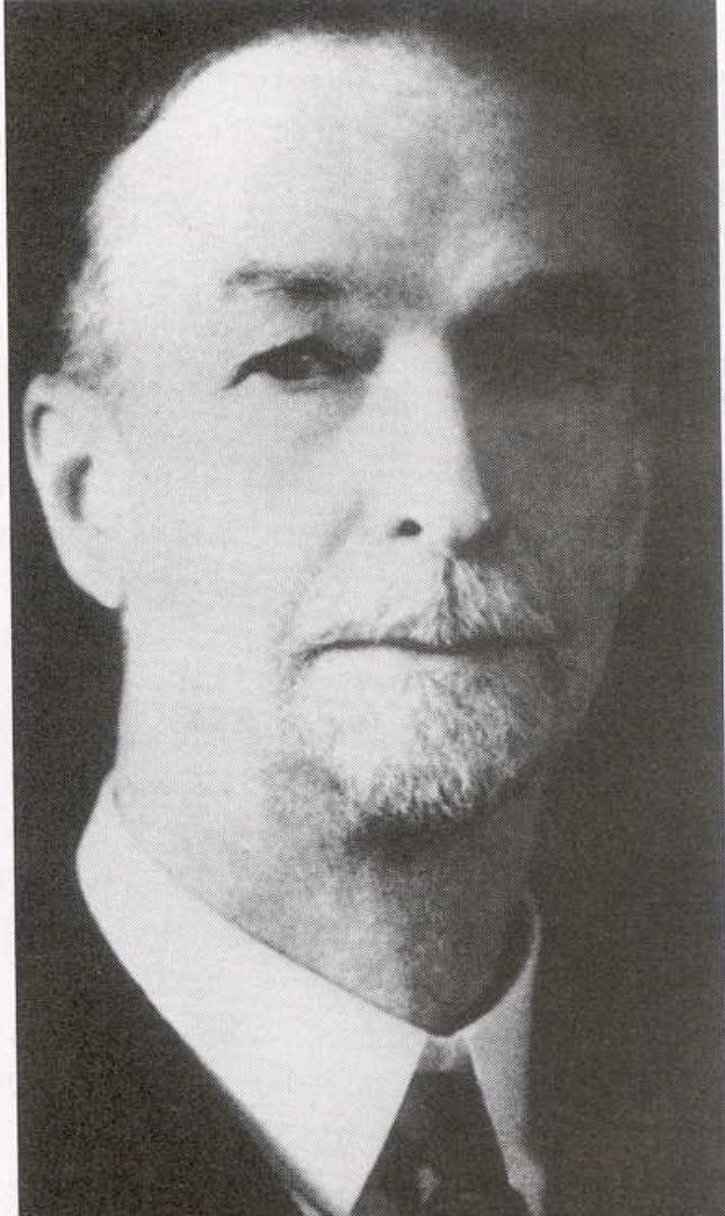


Jean-Baptise Jupille at Institute Pasteur

**Daniel
Elmer
Salmon**

(1850 - 1914)





**Theobald
Smith**
(1859-1934)



Wilhelm Kollo
1865-1935



Sir Almroth Wright

1861-1947



Emil Adolf von Behring
1854-1917
Nobel Prize 1901



Pierre Paul Émile Roux
1853-1933



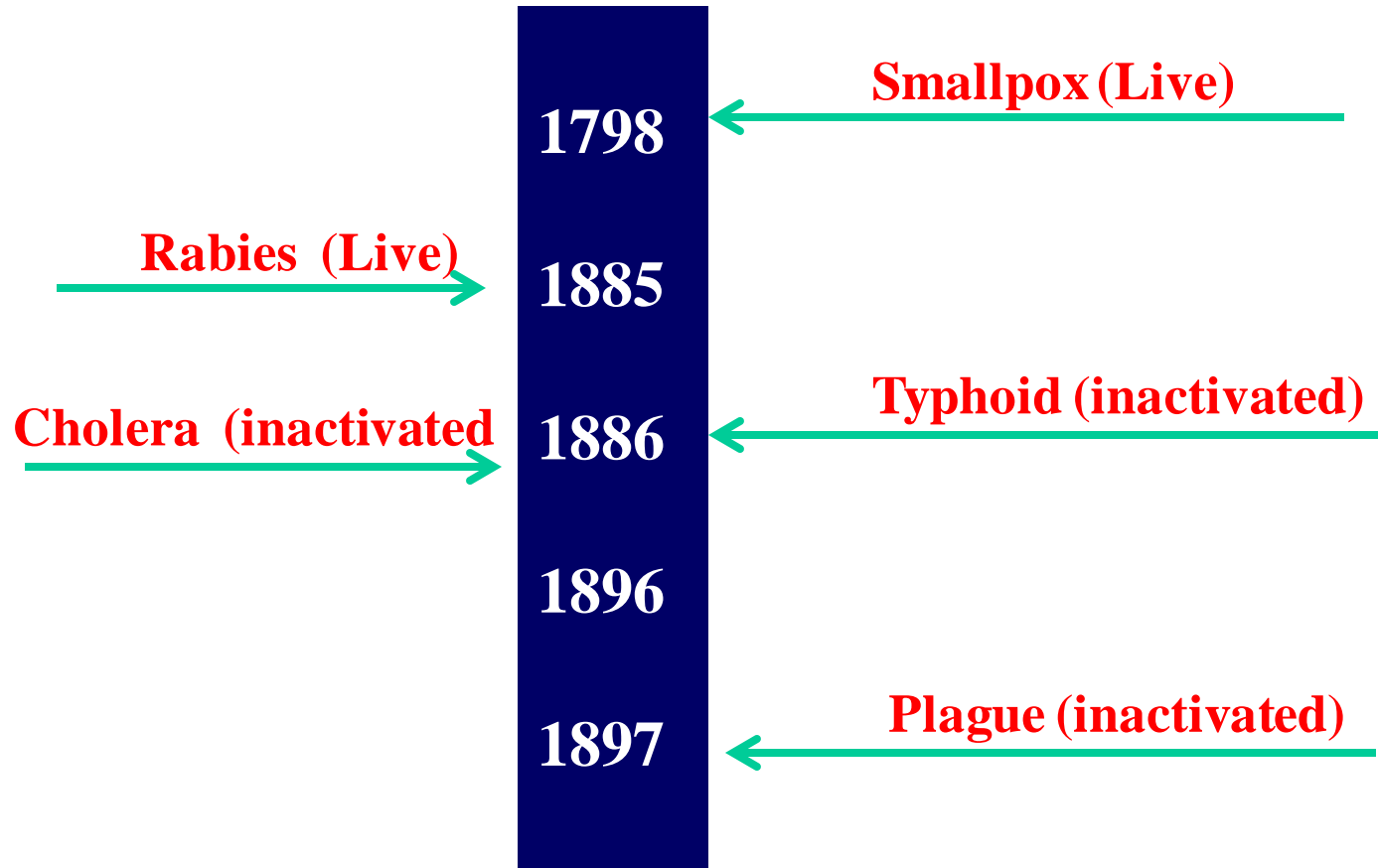
Kitasato Shibasaburo
1853 - 1931



Paul Ehrlich
1854-1915



Jules Bordet
1870-1961





Gaston Ramon, 1940
1886-1963



Calmette administering oral BCG vaccination



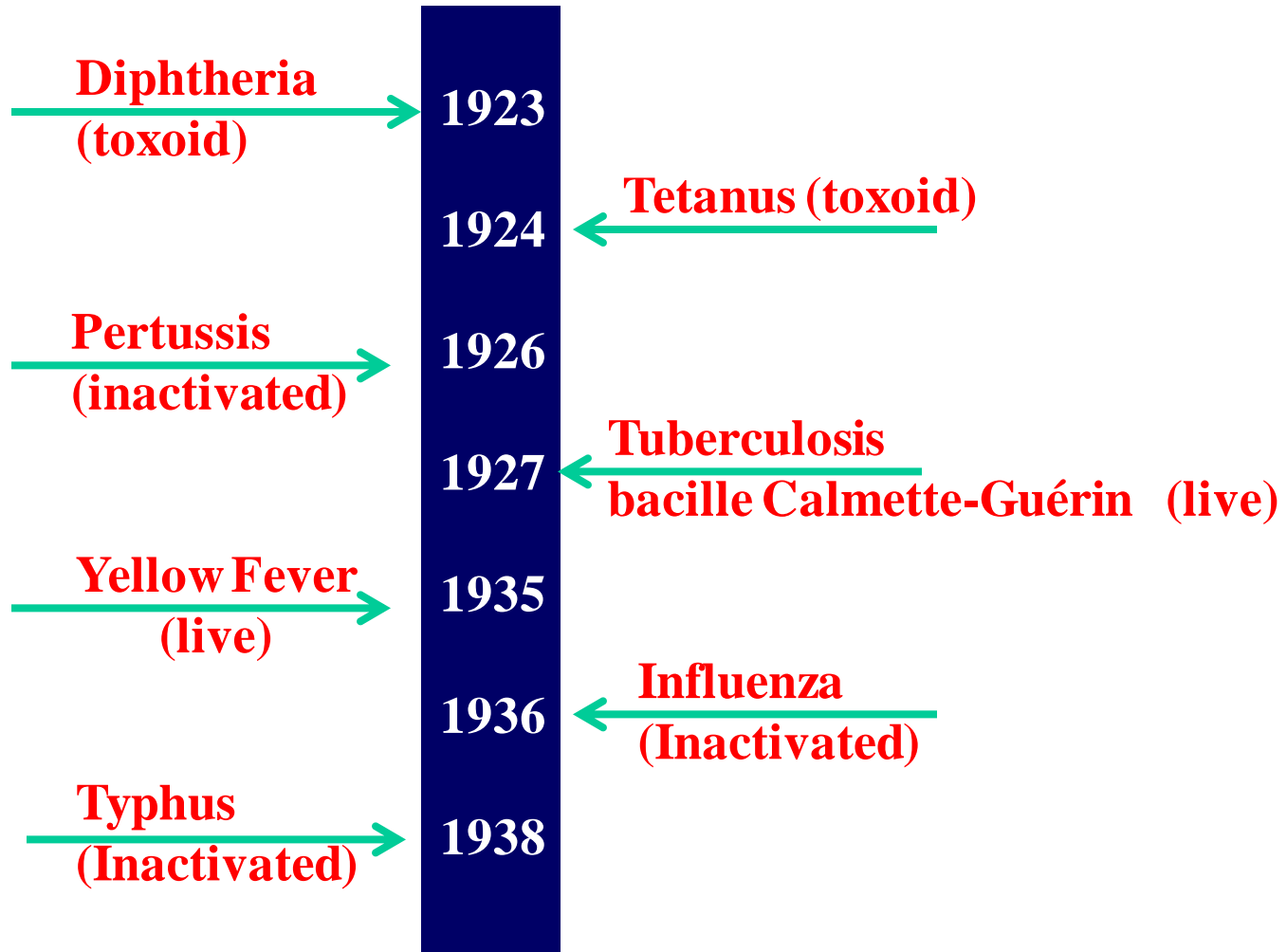
Max Theiler, South African born physician.

Nobel Prize 1951

1899-1972



Richard Shope
1901-1966





**John Enders 1892-1985, Frederick Robbins,
and Thomas Weller, 1954**



Hilary Koprowski

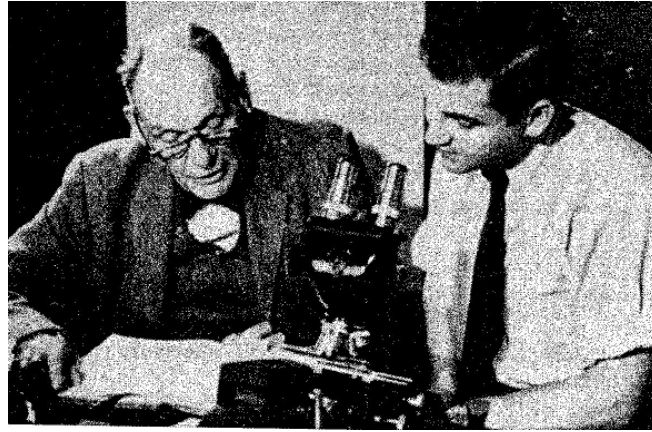
1916 - 2013



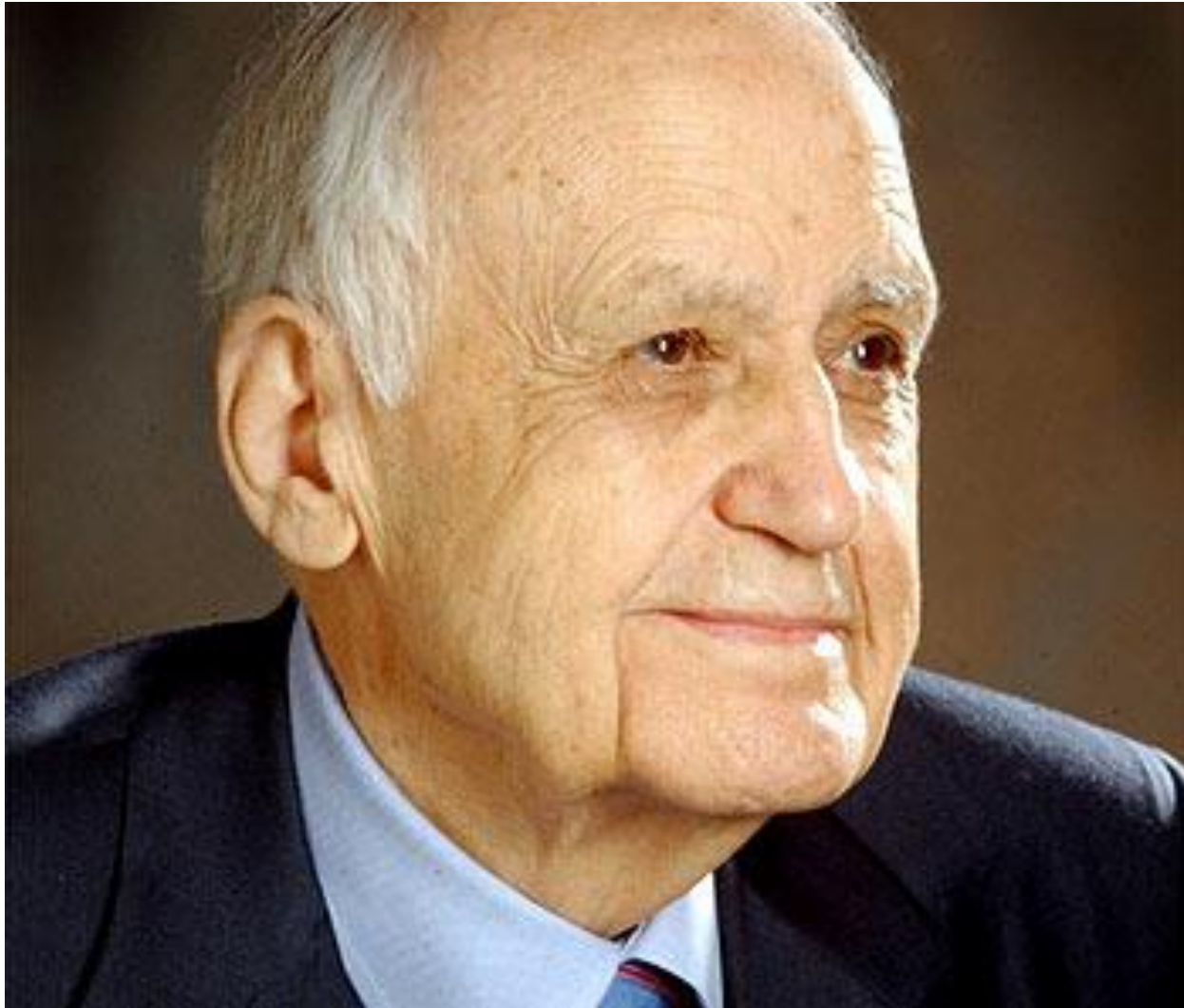
Dr. Jonas Salk
1914-1995



Albert Sabin
1906-1997

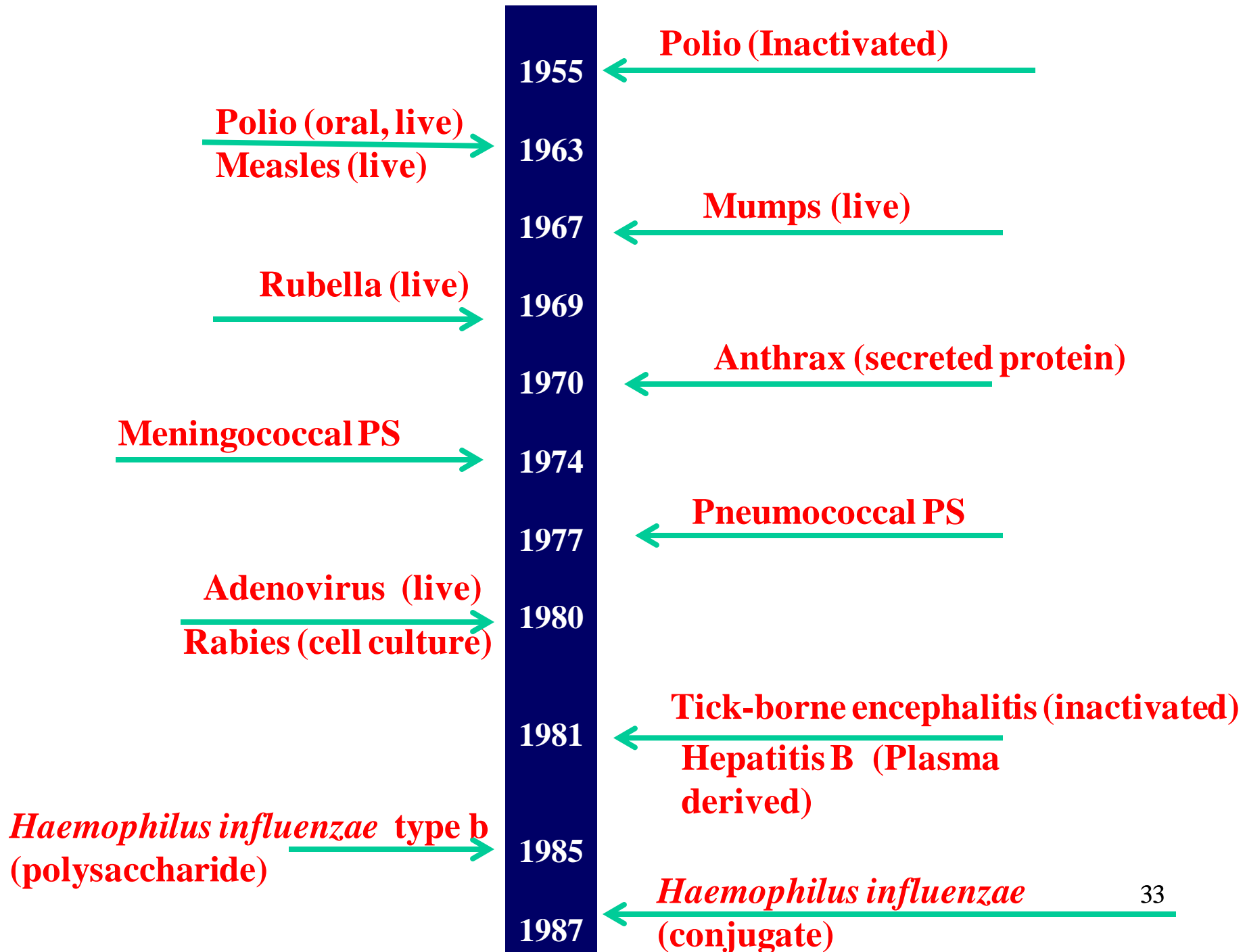


John Enders and Samuel Katz



Maurice Hilleman

1919 - 2005





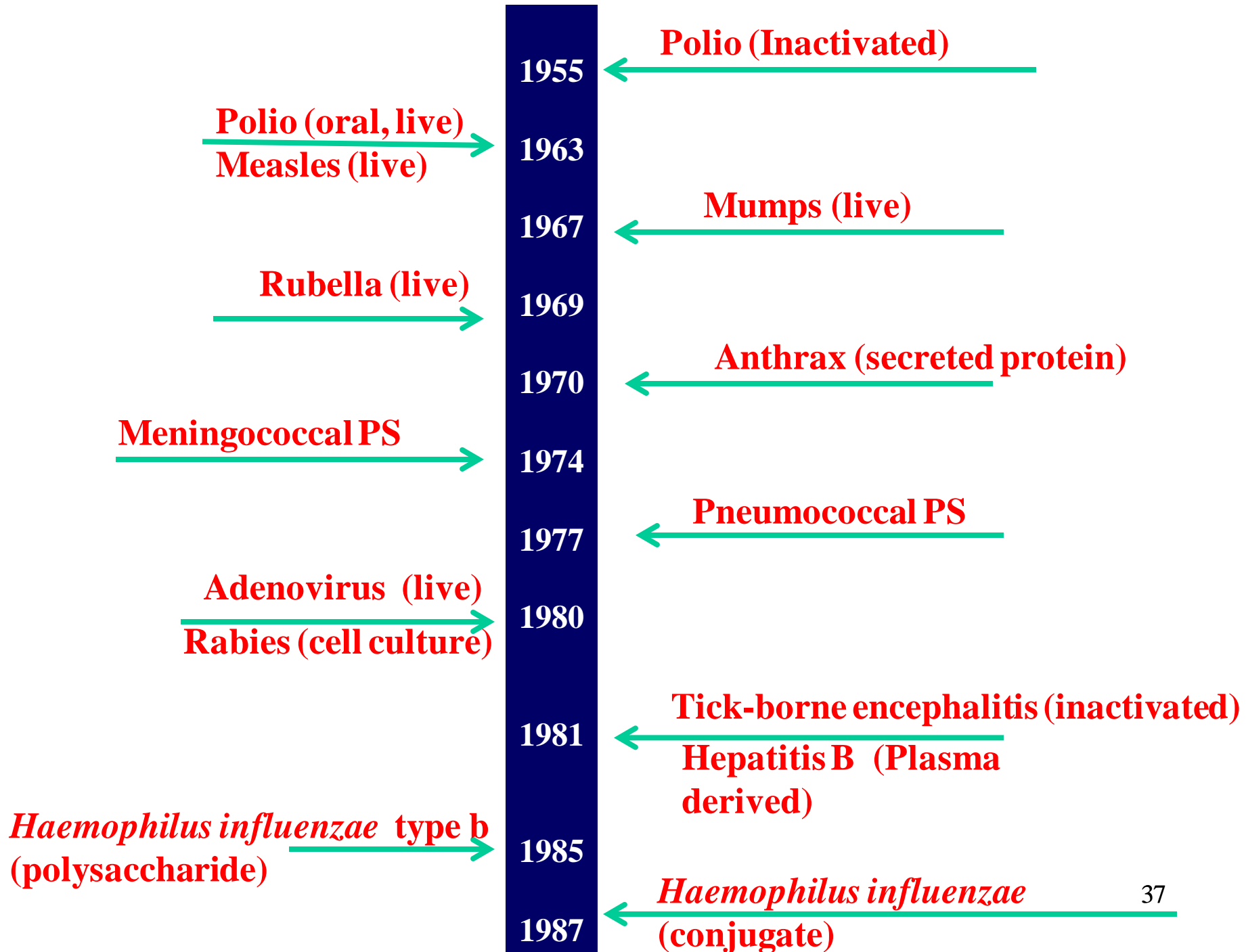
Robert Austrian
1916-2007



Oswald Avery
1872-1955



John Robbins





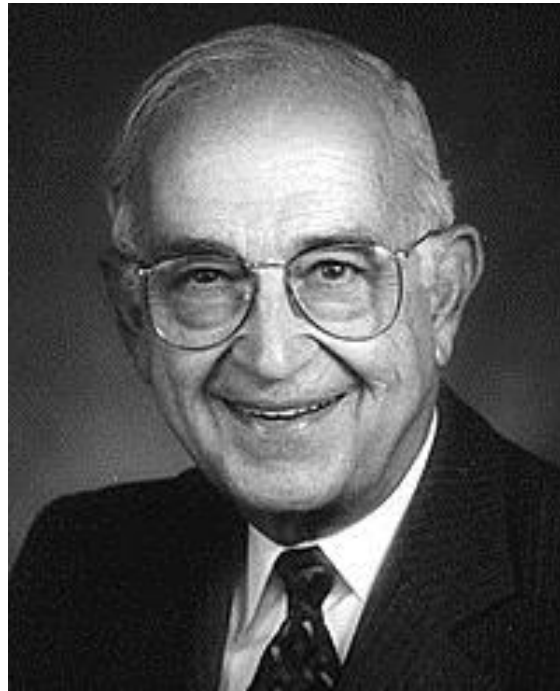
Herbert Boyer



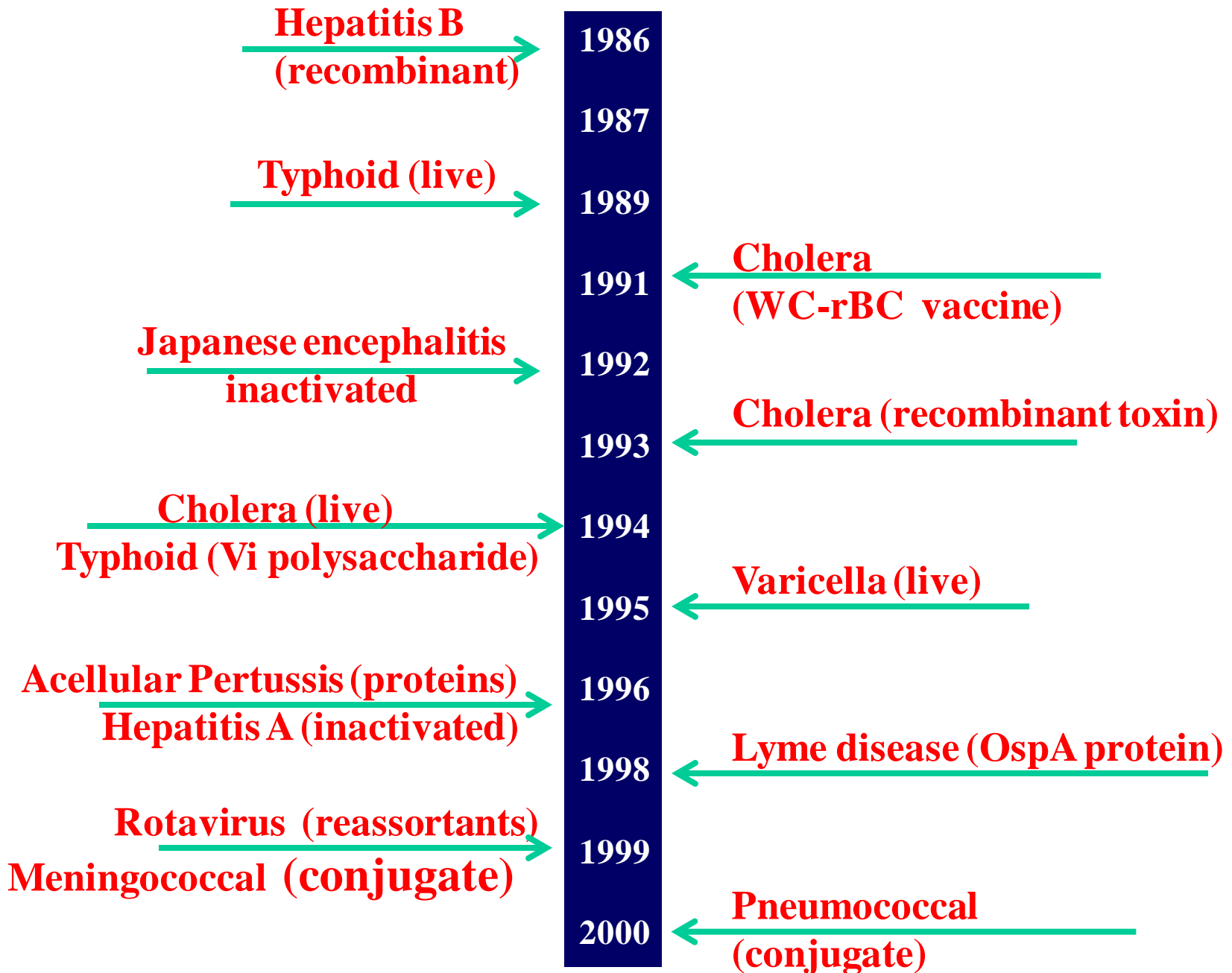
Stanley Cohen



Michiaki Takahashi



Albert Z. Kapikan



Vaccines Licensed Since 2000

Live Attenuated Influenza

Rotavirus

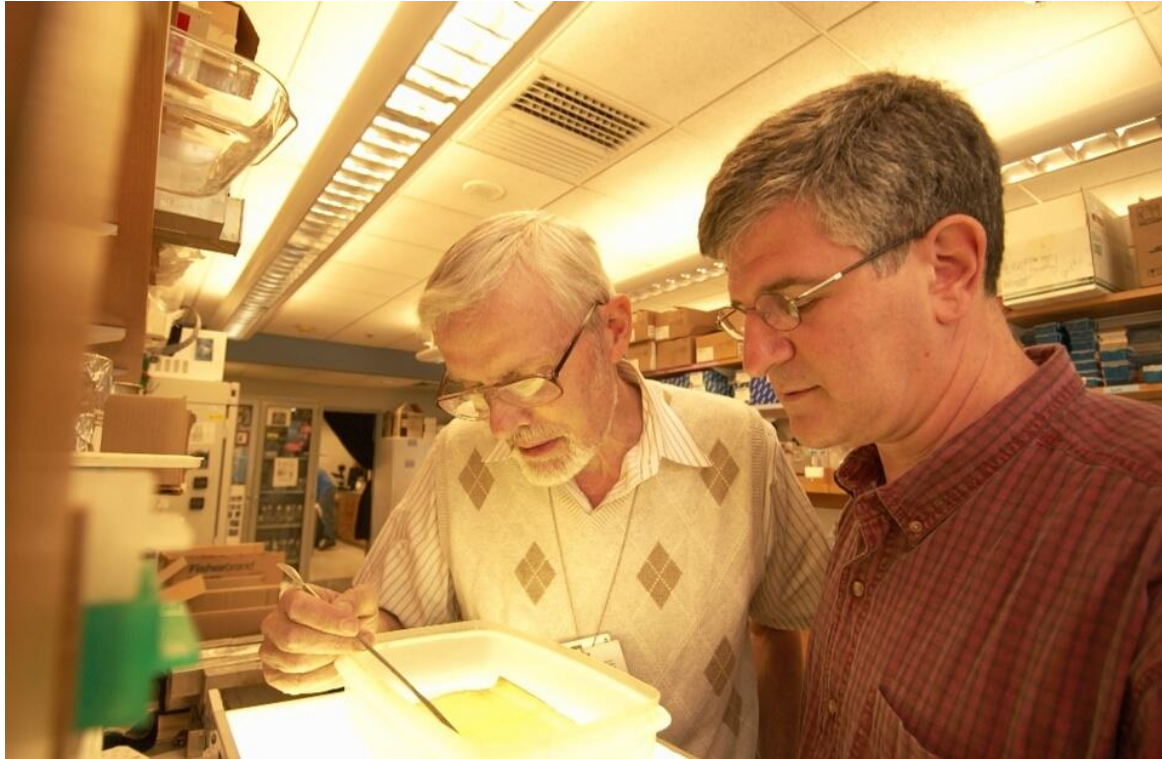
Meningococcal A/C/W/Y

Human Papillomavirus

Meningococcal Group B

Zoster

Japanese encephalitis (Vero)

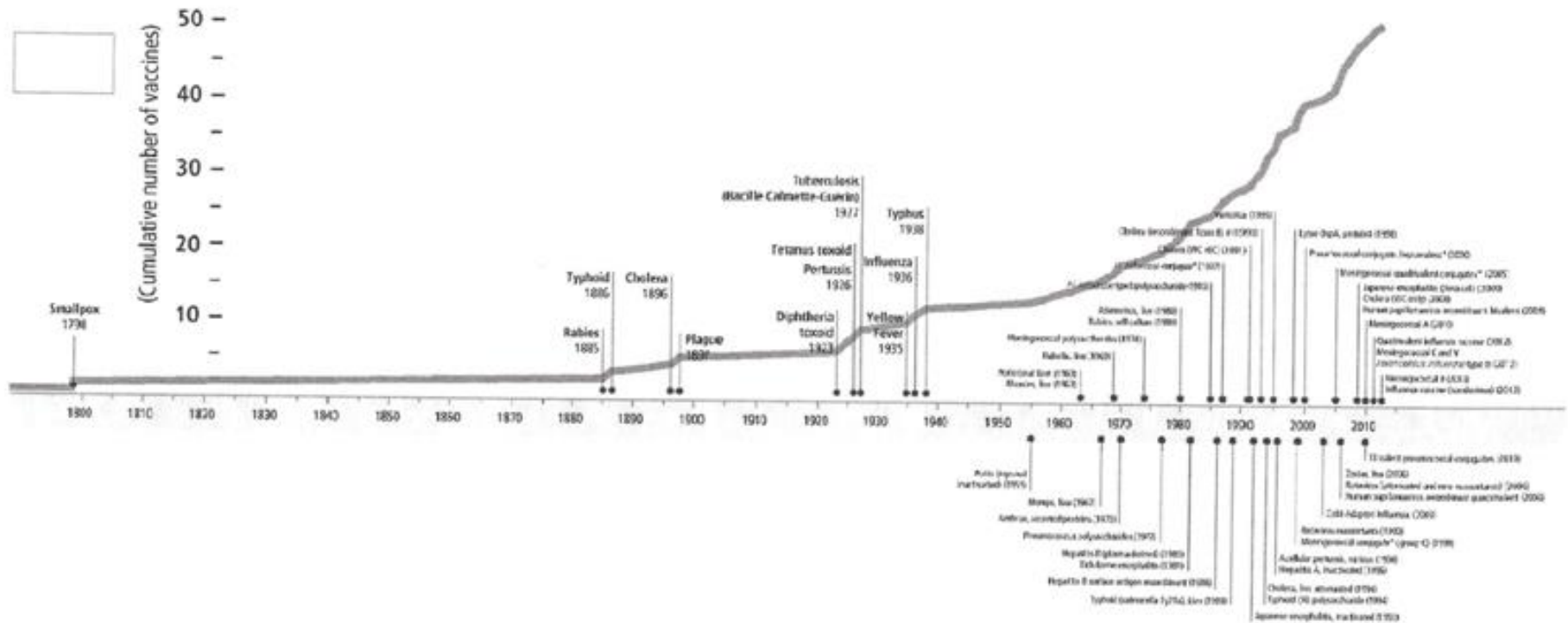


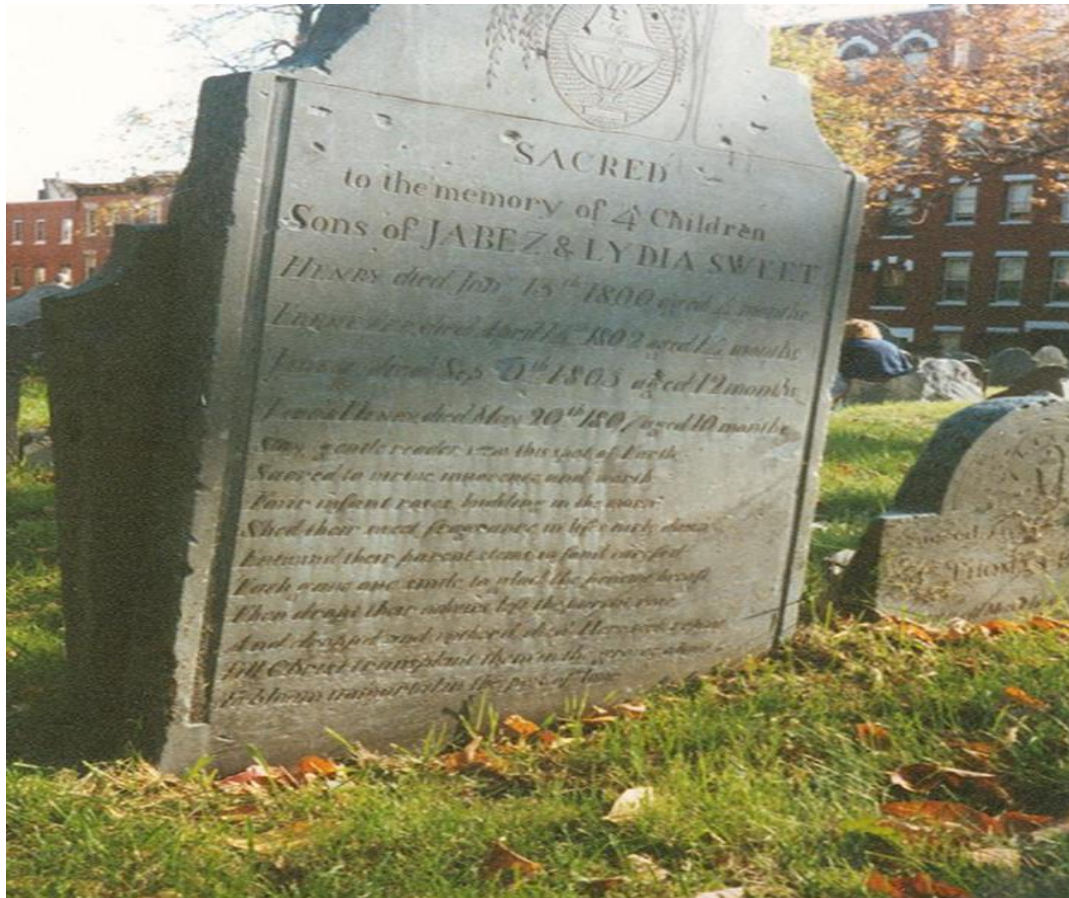
Fred Clark and Paul Offit



Douglas Lowy and John Schiller

Cumulative number of vaccines developed





Sacred to the memories of the sons of Jabez and Lydia Sweet
Henry, died Jan 13, 1800, aged 4 months
Ebenezer, died April 14, 1802, aged 14 months
Jabez, died Sept 10, 1803, aged 12 months
Jabez-Henry, died May 20, 1807, aged 10 months