Jonas Salk (1914–1995)

But not the first to make a polio vaccine
Hilary Koprowski (1916-2013)

Developed vaccines: rabies ... oral polio vaccine (1948)
Troubles in Belfast
George Dick, Professor of Microbiology, QUB

Koprowski’s vaccine:
“In like a lamb, out like a lion”
Salk's vaccine put to the test ... sort of

The biggest clinical trial ever:

- 1.8 million children
- 200 locations, 44 States
- 20,000 doctors
- 40,000 nurses
- 60,000 teachers
- 144,000,000 pieces of data

April-June 1954

Not enough controls – thanks to J. Salk
A busy fortnight

12 April 1955
“It works and is safe”
A busy fortnight

18 April 1955
“The 166-year war with polio is at an end”
A busy fortnight

24 April 1955
Salk's vaccine causes paralysis
Albert Sabin (1906–1993)

Oral polio vaccine (1956) took:
4 years, 20,000 monkeys, 500 chimps and 200 ‘volunteers’
Sabin oral polio vaccine: front runner

Better than Salk:
- 'gut' immunity
- better protection
- spreads itself
- cheap
- no needles

But:
- paralysis! (very rare)
- unreliable in tropics
Deadly Duo

*Salk+Sabin = Success*
Good, bad and ugly:
The story of polio vaccines

Gareth Williams
Emeritus Professor of Medicine, University of Bristol
Ambassador, British Polio Fellowship
So near, yet so far
Polio eradication in 2013 ... 2014 ... 2015?

Thanks to the Taliban
So near, yet so far
Polio eradication in 2013 ... 2014 ... 2015?

Thanks to the Taliban – and the CIA
Dr. Jenner's House, Berkeley

'One of the 5 most important places in world history'

www.jennermuseum.com
Why buy this book?

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... possibly for ever
‘Morning paralysis’
A Curse from Nowhere

Ruma, ~1450 BC
Jacob von Heine, 1840
The poliovirus

\[ C_{332662}H_{492388}N_{98245}O_{131196}P_{7500}S_{2340} \]

Small, simple ...
... and accidental villain
Ordeal by therapy

- Leeches 1850
- Red-hot poker 1870
- Electric shocks 1900
- Brain washout 1935
- Vitamin C 1950
- Cobra venom 1960

‘Polio patients are not cured – they recover’
Paralysed with Fear

1953: second only to the atom bomb
No holds barred
The race for a polio vaccine

Albert Sabin
OPV (1963)

Jonas Salk
IPV (1955)

Basil O’Connor
Wheeler/dealer
Franklin D. Roosevelt (1882–1945)

President, mover, shaker ... and a badly-kept secret
The March of Dimes (est. 1938)
FDR and Basil O’Connor

Dimes went from White House to: New York (1938), Tokyo (1954) ...