A world better prepared to respond to emerging infectious disease outbreaks

Dr Charlie Weller
Head of Vaccine Programme, Wellcome Trust
Uppsala Health Summit, 11th October 2017
‘Those who cannot remember the past are condemned to repeat it’

George Santayana
Testing of an Ebola vaccine: successful but sub-optimal

A vaccine efficacy trial was successfully conducted and the vaccine is effective
Respect the situation, very little was known about Zika, no reagents in place

Zika research response timeline
November 15 I had never heard of it
December 15 Wellcome direct funding starts
February 16 Global agreement to data sharing
March 16 Joint funding with others
November 16 EU funding announced
Throughout 16 substantive NIH funding

Wellcome/DfID/MRC/Newton funded projects (March 2016)

Act fast, Co-ordinate
Ebola epidemic 2014-2015

- $100’s millions in R&D over a decade
- $1.5 billion in humanitarian assistance
- Outbreak lasting > 1 year
- ≈ 30,000 cases
- Widespread political support
A need for global solutions
What is CEPI?

CEPI is a partnership of public, private, philanthropic and civil society organisations.

CEPI will *stimulate, finance and coordinate* vaccine development against priority threats particularly when development is unlikely to occur through market incentives alone.
In addition: EC plans to co-fund with up to €250 mill
CEPI’s gap-filling role: a sustainable partnership approach

<table>
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<tr>
<th>Phase</th>
<th>1 Discovery</th>
<th>2 Development/Licensure</th>
<th>3 Manufacturing</th>
<th>4 Delivery/Stockpiling</th>
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<td>Current Stakeholders</td>
<td>• Academia • Governments • WT/NIH • EC/IMI • Industry • Regulators • Biotech</td>
<td>• Industry • Governments • Regulators • WT/NIH • EC/IMI • Bill and Melinda Gates Foundation • BARDA/DTRA etc. • WHO • Biotech • PDPs</td>
<td>• Industry • BARDA • CMOs • Regulators • Governments • WHO</td>
<td>• GAVI • UNICEF • PAHO • Governments • WHO • Industry • Pandemic Emergency Facility (World Bank) • WHO Contingency Fund</td>
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How will CEPI work?

CEPI will move vaccine candidates from late preclinical studies to proof of concept and safety in humans before epidemics begin.

- larger effectiveness trials can begin swiftly in an outbreak
- small stockpiles are ready for potential emergency use

CEPI will build technical platforms and institutional capacities that can be rapidly deployed against new and unknown pathogens

Call for proposals
1) Initial vaccine targets: Nipah, Lassa, Mers CoV
2) Technology platform that enable rapid vaccine development & scale up
Forward look.....

• Epidemics and pandemics will always happen, we just don’t know when or where.

• Respect the biology, prior knowledge of the pathogen.

• Be as prepared as possible - CEPI

• Act very fast

• Act together
THANK YOU SCIENCE!