CEPI – A global partnership

Richard B. Roberts*
Editor

For the last two decades, we have witnessed a substantial number of new infectious-disease outbreaks and epidemics that have taken the lives of many individuals.¹ The modes of transmission of these epidemics have varied, from airborne (SARS in 2003, influenza H1N1 pandemic in 2009, and MERS-CoV in 2012), arthropod-borne (CHIK virus in 2005 in the Indian Ocean Islands and in the Caribbean and Central America in 2013, and Zika virus in French Polynesia in 2013 and in Brazil in 2015), waterborne (cholera in Haiti in 2010 to the present) to direct contact (Ebola virus disease in 2014). The latter two explosive epidemics occurred in very poor countries that were ill-equipped to control the rapid spread of the disease. Thus each outbreak was associated with a reported high mortality (more than 10,000 died in Haiti and 11,000 died in the West African countries Guinea, Sierra Leone and Liberia). Tragically the cholera outbreak in Haiti continues seven years later. In 2015, Haiti reported more cases of cholera per population than any other country, and in the first nine months of 2016, 29,000 new cases were recorded, even before hurricane Matthew devastated Haiti's southern peninsula in October.²

It has become clear that safe, effective and low cost vaccines must play a pivotal role in the control of future explosive outbreaks. However vaccine development takes time and often vaccines are not available until after the outbreak has subsided.^{2,3} In 2015, catalyzed in large part by the Ebola crisis (more than 28,000 reported cases

at an estimated cost of \$8 billion) it was proposed that a global vaccine development fund be created.⁴ To this end leaders from governments, foundations, industry and civil society came together at the January 2016 World Economic Forum meeting in Davos, Switzerland and agreed to “explore new ways to drive vaccine innovation for high-priority public health threats”.⁵ After that meeting more than 80 organizations and 200 individuals collaborated to create the Coalition for Epidemic Preparedness Innovations (CEPI). In concert with the 2015 proposal, the CEPI mission was “to stimulate, finance and coordinate the development of vaccines for epidemic diseases”. At the January 2017 World Economic Forum meeting, a group of prominent donors announced they had raised almost \$500 million for the CEPI partnership. These initial donors included the Gates Foundation, the governments of Japan and Norway, and Britain's Wellcome Trust. Each will donate \$100-\$125 million over five years. Germany, India and the European Commission are expected to announce donations in the near future. In addition, six major vaccine makers have joined the coalition as “partners” (rather than donors) as well as the World Health Organization and Doctors Without Borders. GlaxoSmithKline (GSK) also plans to allocate up to \$50 million for vaccine research on a non-profit basis in one of its research facilities.⁶

The creation of this global partnership over the past two years was due to the effort and commitment of many individuals and we eagerly look forward to its implementation and success in playing a major role in controlling future microbial epidemics.

Conflicts of interest: None to declare.

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*MD, Professor Emeritus of Medicine, Weill Cornell Medical College; Guest Investigator, The Rockefeller University, 1230 York Ave, New York, NY 10065, USA. barg@mail.rockefeller.edu

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