Ebola: Public-private partnerships

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According to the World Health Organization, the current Ebola epidemic is unlikely to be controlled in the coming months (216). With the exception of the compassionate use of unregistered compounds (217), no specific medical interventions, including the use of antiviral drugs, antibodies, or vaccines, are available. Some candidate compounds and vaccines have entered into limited clinical trials for safety and immunogenicity in healthy individuals. Most of these trials have been carried out by governmental organizations, such as the National Institute of Allergy and Infectious Diseases (NIAID), or by small or medium-size biotechnology companies with public funding. Private-sector investment has been very limited because past filovirus outbreaks were largely self-limiting and therefore believed to provide insufficient financial return on investment. We argue that this is a misconception of the very nature of emerging viruses.

Effective medical intervention strategies against the Ebola and other emerging viruses should address the following needs: local or regional antiviral treatment or vaccination of a limited number of individuals, including health care workers, while prepandemic conditions continue to be observed; stockpiling of antiviral treatments or vaccines to address the potential threat of a large-scale epidemic or pandemic; and antiviral treatments or vaccines for travellers and humanitarian volunteers. These needs can be addressed by the private sector in the context of public-private partnerships and fast-track regulatory procedures.

Public-private partnerships include a range of Innovative Medicines Initiative projects in Europe and programs of the Defense Advanced Research Projects Agency and National Institutes of Health in the United States. For example, a public-private partnership has been formed between the NIAID and the pharmaceutical company GlaxoSmithKline for the accelerated clinical trial of a vaccine candidate against the Ebola virus. Meanwhile, regulatory agencies, including the European Medicines Agency and the U.S. Food and Drug Administration, are dedicated to implementing fast-track regulatory procedures and adaptive licensing programs (218). Rethinking the mechanisms to involve the private sector in developing antiviral compounds and vaccines before the onset of an emerging epidemic would not only benefit the pharmaceutical industry but also society at large.